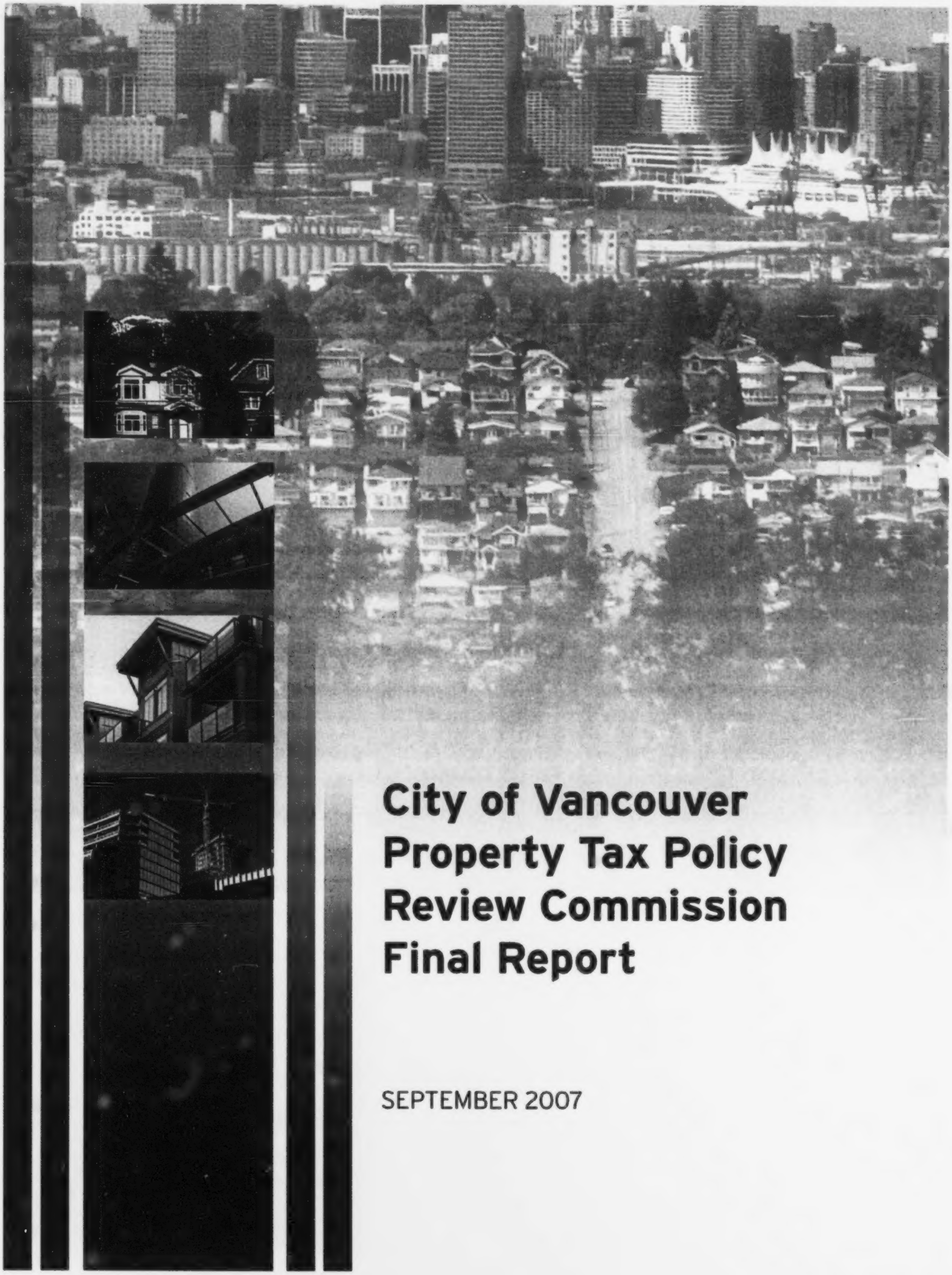

City of Vancouver Property Tax Policy Review Commission Final Report

SEPTEMBER 2007

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Finally, we wish to thank the Mayor and Council for inviting the commissioners to participate in this important undertaking. We appreciate the confidence exhibited in our appointment. As always, any remaining errors or omissions are the sole responsibility of the Commission.

EXECUTIVE SUMMARY

The City of Vancouver established the Property Tax Policy Review Commission in response to concerns expressed by the business community about the impacts of the City's taxation policies on the health of Vancouver's economy.

The Commission was asked by the City to address two issues:

- Tax Share: Recommend to Vancouver City Council a long term policy that will define and achieve a "fair tax" for commercial property taxpayers, addressing the perceived inequity in the share of the City of Vancouver's property tax levy that is paid by the non-residential classes, and
- Volatility: Recommend a strategy to enhance the stability and predictability of property taxes for individual properties in the face of sudden, year-over-year increases in market value.

Public Consultation

City Council directed the Commission to engage the community in the process of reviewing property taxation. In response to this directive, we provided two main opportunities for input:

- an extensive newspaper advertising program and the creation of a website in which we invited the public to submit comments in writing; and
- a series of public hearings in February 2007.

The Commission held four open forums with 27 delegations attending and received 40 written submissions from the community. We are satisfied that citizens were provided with ample opportunity to participate.

Evaluation Principles

The Commission was asked to identify and apply a set of principles that are typically used to evaluate taxation policy. We identified six principles:

- Fairness, based on benefits received
- Fairness, based on ability to pay
- Neutrality
- Accountability
- Stability and predictability
- Simplicity and ease of administration

Taken one by one, these principles are relatively easy to apply. However, it is not possible to design a tax system that simultaneously meets **all** of these objectives.

Although we have not rejected any of the principles in developing our conclusions and recommendations, we have had to emphasize some more than others.

The Tax Share Issue

One of the two key issues we were asked to examine was whether the property tax burden on business in the City of Vancouver is too high. To address this issue, we focus on the following questions:

- Are business property taxes high relative to the services that business receives in the City?
- How do Vancouver business taxes compare with other major cities in Canada with other municipalities in the GVRD Vancouver might compete with for business and investment?
- Is there any evidence that the pace of commercial investment and development has been negatively affected by property taxation?
- Is there any evidence that the rental value or vacancy rates of commercial properties in the City have been negatively affected by property taxation?
- Is there any evidence that businesses are leaving Vancouver because of property taxation?

We believe the evidence is clear: although the share of property taxes paid by business has been declining over the past decade, business taxes in Vancouver are high relative to residential taxes and relative to business taxes in neighbouring GVRD jurisdictions. What is less clear is the appropriate indicator to use to determine the appropriate tax share. Each of the indicators used in our analysis provides a different basis for estimating the differential and, not surprisingly, provides different estimates of its extent.

What is also less clear is the impact of the higher property taxes on commercial development in Vancouver. There is little evidence to suggest that property taxes have had a negative impact on business investment or the demand for commercial space. Indeed, competition for commercial space has kept market rents higher in the City than in other GVRD locations. While we find little evidence that a major problem exists, we do conclude that taxes on the business class in Vancouver are at the high end of what might be considered a reasonable range for the class.

The Vancouver Fair Tax Coalition and others have recommended that the City adopt consumption of services as the primary indicator of fairness. Although the Commission agrees that there is merit to this approach, we feel that there are inherent weaknesses in consumption studies generally. In particular, the analysis typically considers only the direct benefits from municipal services and not the indirect benefits enjoyed by non-residential properties.

The other fairness principle, ability to pay, provides some guidance on the level of taxes that should be paid by individual properties **within** a class but, unfortunately, does not provide us with a guide to the sharing of taxes across classes.

We are concerned that a sustained pattern of high business property taxes has the potential to compromise Vancouver's ability to remain competitive within the region. In addition, accountability is not well served if residents have the greatest influence over the type and level of services provided but do not pay a proportionate cost of the service. Based on the conclusions reached with respect to fairness, competitiveness and accountability, the Commission feels that some further reduction in the non-residential share of taxes is warranted.

Recommendation #1:

The tax share paid by non-residential property (Classes 5 and 6) should be reduced from its current level to 48 percent.

We recognize that the actual share will be influenced by the impact of new construction in the different tax classes and Recommendation #1 is net of the effect of new construction on tax share.

Recommendation #2:

The City should reduce the tax share borne by business by one percentage point per year in each of the next years until the 48 percent share is achieved.

Prior to our appointment in 2006, the non-residential tax share was 55%. If the City accepts and implements the proposed goal of 48%, the business community will benefit from a 7% reduction in tax share over six years.

Recommendation #3:

Following implementation of the 48% goal, the City should keep the tax share unchanged for a period of 5 years unless the differential between business taxes in Vancouver and business taxes in neighbouring municipalities widens considerably and/or the balance of business investment shifts substantially away from Vancouver to neighbouring jurisdictions.

The Volatility Issue

The second major issue we were asked to address is the volatility or hot spot issue. We define a hot spot as "a property or cluster of properties that experiences an unanticipated year-over-year increase in assessed value that is significantly greater than the average increase for the class". The notion of *unanticipated* is used to exclude year-over-year increases that may well have been anticipated because of some action on the part of the property owner such as new construction or a significant change in zoning.

We first ask whether the evidence supports the view that "hot spots" are a major issue in the City of Vancouver and whether there is a consistent pattern in the type of properties that are hot.

Our findings show a significant number of residential and non-residential properties facing relatively large annual increases in taxes as a result of volatility in the market and beyond the level property owners might have reasonably anticipated. The problem is significantly worse for non-residential properties than residential properties.

We find that there is a positive relationship between neighbourhoods experiencing an above average relative increase in total assessed values and the percentage of properties in the neighbourhood that are found to be hot properties. Hot properties also repeat over the study period and repeat more often for non-residential properties than for residential properties.

Properties with redevelopment potential are more likely to be hot properties. Vacant sites are significantly over-represented in the hot property category.

Although we are not able to link owner-tenant status to individual properties, the characterization of properties that are more likely to be hot properties provides some insights into the problem facing tenants, particularly tenants in older properties approaching redevelopment.

We review a number of policy options to address volatility:

- Averaging, both the current three-year land averaging policy used by the City and five-year land averaging
- Capping
- Phase-In
- Rebate of taxes to commercial tenants
- Unoccupied Density Allocation
- Less frequent assessments, assessment freezes, and time-of-sale reassessment

Three-year averaging is a useful policy to address the volatility issue but has some significant weaknesses: it is not targeted – all properties are affected even if they are not "hot"; second, three years is not long enough to cushion the impact of very large changes in market value.

Our analysis of both the capping and the phasing mechanisms highlight a number of advantages over averaging. In particular, they focus on delivering assistance to hot properties and they provide a significant moderation of the annual increases facing the hot properties. We find the phasing model is preferred to capping because it takes less time to eliminate the impact.

We do not advocate a system of rebate to commercial tenants, in part because of the challenges to ensure the tenants receive the benefit and in part because of the additional administrative requirements. We also do not recommend the Unoccupied Density Allocation model advanced by the Vancouver Fair Tax Coalition. Although creative, it moves away from the consistent use of market valuation as the basis of taxation and creates very difficult administrative issues.

We do not support less frequent assessments, assessment freezes or time of sale reassessment. All these mechanisms would move the system away from assessment based on current market value which we regard as key to achieving an equitable property tax system. Any measures to address volatility should be designed to offer **temporary** relief by moderating year-over-year changes in value but should not allow a prolonged deviation from market value.

The Commission recommends that:

Recommendation #4:

The City should adopt a phase-in mechanism that would replace three-year land averaging for Class 1, Class 5 and Class 6. The phase-in mechanism would apply only to properties that would otherwise experience a tax increase that is 10% or more above the average for the class, exclusive of new construction.

The proposed phase-in mechanism is considerably different than that allowed under current legislation. Therefore, Provincial approval would be required to develop a phase-in mechanism along the lines recommended by the Commission.

Recommendation #5:

The City of Vancouver should maintain the present three-year land averaging program for Class 1, Class 5 and Class 6 properties until such time as a phase-in mechanism is developed.

We received several submissions during the hearing outlining the problems commercial tenants are facing in terms of property taxes. We recognize that our recommendations do not directly focus on tenants. Nevertheless, we believe that the combination of our recommended tax shift from non-residential to residential properties, coupled with a more focused effort to address the hot property issue, will help address the challenges facing commercial tenants.

1.0 INTRODUCTION

1.1 Background and Mandate

The City of Vancouver established the Property Tax Policy Review Commission in response to concerns expressed by the business community about the impacts of the City's taxation policies on the health of Vancouver's economy.

When the City appointed the Commission[1], it asked us to:

- Recommend to Vancouver City Council a long term policy that will define and achieve a "fair tax" for commercial property taxpayers, addressing the perceived inequity in the share of the City of Vancouver's property tax levy that is paid by the non-residential classes, as compared to the share paid by the residential property class, and
- Recommend a strategy to enhance the stability and predictability of property taxes for individual properties in the face of sudden, year-over-year increases in market value.

The Commission commenced work in December 2006 and delivered our report in September 2007. The Terms of Reference appear in Appendix A.

In performing our work, the City asked the Commission to adhere to the following principles and guidelines:

- **Equity:** The Commission should have an appreciation of the impacts of any changes to the tax distribution on all classes of properties.
- **Sustainability**: The Commission's recommendations should be consistent with the City's long term objectives for economic, fiscal, and social sustainability.
- **Independence and Objectivity**: The Commission should be independent and make recommendations that will result in the best possible outcome for Vancouver as a whole, without favouring any one stakeholder group over another.
- **Simplicity**: Any recommended changes should be simple, transparent, and readily understandable by the City's taxpayers and other stakeholders.
- **Consultation**: The Commission should appropriately engage the business community, residential taxpayers, and other key stakeholders in the process.
- **Transparency:** The Commission's work should be transparent, with the Commission's public process minuted and its recommendations reported to Council and available to the public.
- **Maintain Council's Control Over Tax Allocation**: The Commission's recommendations should be developed within the current "fixed share" approach, in

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[1] The Commission is comprised of three members; information about our background and qualifications appears in Appendix B.

which the allocation of tax share among property taxes is determined by Council rather than simply in response to changes in market value.

- **Municipal Taxes Only**: The work of the Commission is limited to a review of the taxes levied by the City of Vancouver and should not include property taxes collected by the City on behalf of other taxing authorities.

There are some aspects of the property taxation system that are not within the scope of the Commission:

- **City Budgeting**: The overall level of taxation is determined by the City's spending. The City does not intend the Commission to address City spending, which determines the total tax burden. The City wants the Commission to focus on how the load is distributed among property classes.
- **Market Value Assessments**: The assessment of the market value of property is the function of the BC Assessment Authority, a provincial agency that provides market value assessments to all local governments in BC. The Commission's mandate does not include any review of the market value assessment system.
- **Property Taxes Levied By Other Agencies**: A substantial part of a property tax bill is made up of education, transit, and other levies that are not under the control of the City and are, therefore, not within the Commission's mandate.

1.2 Process Followed by the Commission

The work of the Commission proceeded as follows:

1. We reviewed the current City property tax system, taxation policies, and reports previously completed by City staff.
2. We established a website containing information about the Commission and its mandate. On this website we invited interested parties to submit briefs to the Commission and also provided background information about property taxation in general and the Commission's work in particular.
3. During November 2006 through February 2007 we met with City staff, staff at the British Columbia Assessment Authority, representatives of some key stakeholder groups, and the authors of the research report on consumption of services commissioned by the City[2].
4. We conducted public hearings in February 2007. These hearings were advertised extensively in local newspapers and on the website. Interested parties were invited to make a presentation and/or provide a written submission to the Commission. The hearings were open to the public.

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[2] *City of Vancouver Consumption of Tax-supported Municipal Services*, prepared by MMK Consulting Inc., January 5, 2007.

5. After reviewing the input from the hearings and completing some preliminary analysis, we submitted an interim report in March 2007 with the intent of providing input that City Council could consider in setting tax rates for the 2007 fiscal year. A copy of our interim report is included in Appendix E.
6. During April 2007 through September 2007, we completed more detailed analysis, met several times to review the analysis and implications, and drafted our report and recommendations.

The City's instructions to the Commission included four important directives that have had an influence on the how we approached our work.

The first directive is to be simple. The City wants analysis and advice that will be readily understandable by taxpayers and stakeholders. We are of the view that in order for solutions to be simple and understandable, taxpayers must have a clear grasp of how the system works. Accordingly, we have included in our report an overview of the taxation system, with particular emphasis on the points at which Council makes policy decisions that affect the tax burden on different property classes.

The second directive is consultation. The City required that the Commission engage taxpayers and ensure that taxpayers had an opportunity to express their views about property taxation. We have listened carefully to the concerns of business taxpayers, residential taxpayers, and other stakeholders in order to understand their perspectives, concerns, and ideas. We have included in our report a distillation of the oral and written submissions from stakeholders.

The third directive is independence. While we have listened to stakeholders and heard their concerns, we have an obligation to make our own independent assessment of the situation. Rather than simply accept the submissions of stakeholders at face value, we have made our own enquiries and conducted our own analysis to determine the impacts of taxation policy and to test the assertions that have been made by the business community.

The fourth directive defines principles that the Commission should reflect in its recommendations. In particular, the City emphasizes equity and sustainability, but there are other principles that can be used to evaluate a taxation system. We have articulated what we believe are the principles of a good taxation system and we have used these principles to evaluate the property tax system in Vancouver.

1.3 Outline of the Report

The report has ten sections, of which this is the first.

Section 2.0 presents an overview of the current property taxation system and policies in the City of Vancouver.

Section 3.0 summarizes the input we received from stakeholders, with a focus on defining the most important concerns articulated by business and residential property owners.

Section 4.0 sets out the principles that we used to evaluate property tax systems.

Section 5.0 presents our analysis of the tax shares borne by the residential and non-residential sectors, which is one of the two major issues raised during the hearings.

Section 6.0 summarizes a range of alternative policies that may be considered to address the tax share issue.

Section 7.0 provides our conclusions and recommendations regarding the tax share to be paid by non-residential and residential properties.

Section 8.0 presents our analysis of the impact of property taxes on individual properties that face significant year-over-year changes in taxes.

Section 9.0 summarizes a range of alternative policies that either have been used elsewhere or may be considered.

Section 10.0 presents our conclusions and recommendations relating to the issue of large unanticipated tax increases for individual properties.

Seven appendices with background information are attached. They are:

Appendix A	Terms of Reference
Appendix B	About the Commissioners
Appendix C	Tax Share Issue
Appendix D	Volatility
Appendix E	Analysis of Class 5 Light Industrial Properties
Appendix F	Impact of Capping and Phase-in for Class 1 Residential Properties
Appendix G	Interim Report

2.0 THE CURRENT PROPERTY TAX SYSTEM IN THE CITY OF VANCOUVER

This section describes the current property tax system in the City. It is divided into two major parts:

- The first part (Section 2.1 through Section 2.7) presents an overview of how property taxes are calculated.
- The second part (Section 2.8) reviews the trends in property taxation in the City.

2.1 Overview of Property Tax Process

In British Columbia, provincial legislation empowers local governments to levy property taxes for the purpose of funding capital and operating expenses. The BC Assessment Authority and the City follow six basic steps to determine the amount of tax levied on the owner[3] of a property in the City of Vancouver:

1. The BC Assessment Authority determines the taxable assessed value of each property.
2. The BC Assessment Authority assigns all properties to a "property class."
3. Vancouver City Council determines what share of the annual budget will be paid through property taxes.
4. Vancouver City Council determines the tax allocation between different classes of properties.
5. Vancouver City Council calculates tax rates.
6. Vancouver City Council applies mitigation measures.

Each of the main steps in the calculation of City-levied property tax is examined in more detail below.

2.2 Determination of Taxable Value

The BC Assessment Authority is a provincial agency responsible for determining the assessed value of all real property in British Columbia. The Authority first determines the gross assessed value of land, improvements, and the total of land plus improvements. Exemptions are then applied to arrive at a net taxable assessment for land, improvements, and the total.

Assessments are based on market value. To determine the market values, the Authority relies upon market evidence from recent sales and rental rates of "comparable" properties. The assessed values for the current year are based on estimated market values as of July 1st of the previous year.[4]

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[3] Legally the property owner is responsible to pay the property taxes.

In determining market values, the Authority values the unencumbered fee simple (the property as if no leases existed). Hence, there is no separate valuation on leasehold interests, such as possible tenants of various parts of the site. In arriving at the estimate of values, many factors are taken into consideration including, but not limited to, current use and zoning. Consequently, a site may include small, older improvements that are occupied by a small retailer, but the site may be zoned for high density commercial and/or residential use. This development potential may result in a property value that is much higher than the value implied by the current actual occupancy of the site.

Assessed value can change rapidly in the market. In Vancouver, for example, the residential market has experienced increases in values during the last decade, with a high rate of increase sustained over several years. These market changes are reflected in the assessed values. In British Columbia, the assessments are determined annually so that market changes are captured in assessed values relatively quickly.

Since 1993, the City has applied three-year land averaging to cushion the impact of changes in the market value of individual properties in the residential, business, and (as of 2007) light-industry property classes. This technique uses the average land value of the current year and that of the two prior years in calculating each property's assessed value. The current assessed value of property improvements is added to the average land value. Land averaging phases in the impact of changes in assessed value. Land averaging is revenue neutral in that the same total tax levy is collected from each property class with or without averaging.

2.3 Determination of Property Class

The BC Assessment Authority is also responsible for determining the class of property for taxation purposes. This classification is governed by provincial legislation and regulations. The major determinant of property class is the actual current use of the property[5]. Different classes of properties may be (and are) taxed at different rates.

Table 1 shows the distribution of properties by property class in Vancouver in 2006. It shows that the majority of properties are either in Class 1 (Residential) or Class 6 (Business/Other).

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[4] All property owners have the right to appeal the BC Assessment Authority's valuation.

[5] In some cases a property is divided into more than one class. For example, the main floor may be classed as retail and the other floors as residential.

Class	Number of Properties	% of Properties	Total Taxable Value ($000)	% Total Taxable Value
1. Residential	157,724	91%	$89,736,085	83%
2. Utilities	187	< 1%	$181,960	< 1%
4. Major industry	25	< 1%	$124,003	< 1%
5. Light industry	442	< 1%	$194,705	< 1%
6. Business/other	13,221	8%	$17,411,839	16%
7. Managed forest	0	0	$0	0
8. Seasonal/recreational	869	< 1%	$328,182	<1%
9. Farm	11	< 1%	$94	< 1%
Total	**172,479**		**$107,976,878**	

Table 1: Distribution of Properties and Total Taxable Value by Property Class in the City of Vancouver, 2006

Table 1 does not include properties or portions of properties that are exempt from taxation, such as schools and churches.

One point that should be noted is the Class 6 definition, Business/Other: this particular class includes a wide variety of property uses and a wide distribution of values. Table 2 provides a brief insight into the composite of Class 6 according to types of use.

Category of Use	% of All Properties	% of Total Assessed Value
Office/Commercial Strata	36.1%	36.8%
Retail	23.5%	31.3%
Services/Processing	13.7%	12.5%
Hotel	12.3%	7.9%
Storage/Warehouse	7.0%	7.7%
Civic institution/Others	7.4%	3.8%
Total	100.0%	100.0%

Table 2: Distribution of Properties in Class 6 by Primary Use of the Property

Table 2 is concerned with the "primary use of the property" and should be viewed as suggestive since many properties have more than one use. For example, many office buildings have retail space on the main floor and many retail properties have office or residential space above. The significant point to be taken from Table 2 is the diversity of use within Class 6. In contrast, in Class 1 primary actual uses are much more homogeneous.

One further point should be kept in mind when comparing Class 1 and Class 6. There are significant differences in the relative value of properties in the two classes. Not only does Class 6 cover a very broad range of uses, it also covers an extremely broad range of values. For example, for the year 2007, the top 10% of the Class 1 properties represented 1.3 times the value of the bottom 50% of properties. In contrast, the top 10% of the properties in Class 6 accounted for 21 times the value in the bottom half of the class.[6]

2.4 Total Property Tax Levy

Council decides on an annual City budget. Some of the budget is financed through user fees, earnings on investments, and other sources. The balance is raised through property taxes. The City can influence the size of the total tax burden by changing expenditures or identifying other sources of revenue. [7]

2.5 Distribution of the Tax Levy among Classes of Property

After setting the budget, the City Council determines how to distribute the overall tax burden among the different classes of property. Since 1983, Council has applied the "fixed share" approach to the distribution of property taxes among the residential and non-residential classes. Under this approach, the allocation of the levy among property classes remains constant over time, subject to physical changes in the classes or a Council decision to change the allocation. This approach means that changes in the assessed values of properties do not affect the tax share for each property class.

2.6 Calculation of Tax Rates

Once the total share of property tax revenue from each class is determined, the City divides the tax amount allocated to each class by the averaged assessed value in each class to determine a tax rate. This tax rate is normally expressed in dollars of tax per thousand dollars of assessed value. This tax rate is then applied to all properties in the class. The total averaged assessed value of each property multiplied by the tax rate equals the City's share of the property tax for each property.

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[6] The top 10% of the properties in Class 1, as measured by net taxable value, represents 32.7% of the total value for the class, while the bottom 50% of the properties accounted for 24.9% of the total for the class. The top 10% of Class 6 properties represented 72.5% of the total value for the class, while the bottom half accounted for only 3.4% of the total.

[7] Our mandate excludes addressing the City's total budget, its budgeting process, or its determination of how much property tax to collect in total.

Other levels of government also levy property taxes. The City of Vancouver collects these taxes on behalf of the taxing authorities, but has no say in setting the rates or spending the funds collected. For example, the provincial government levies an education tax on all properties to pay part of the costs of the public school system. Translink levies a transit tax. Metro Vancouver, the new name for the Greater Vancouver Regional District, or GVRD, also levies a property tax to cover the cost of regional services. In 2006, approximately 44% of total residential property taxes and 55% of total business property taxes were municipal taxes. Notwithstanding the significance of these other tax rates, the Commission was restricted to a review of the City's property taxes.

2.7 Application of Mitigation Measures

There are two main provincial mechanisms that can alter the tax burden on individual residential properties: the Home Owner Grant and the Property Tax Deferral Program. The Home Owner Grant provides grants to residential property owners who occupy their principal residence and whose home value falls within the qualifying range. These grants are applied first to offset school taxes; any remaining grant is applied to other taxes.

The Property Tax Deferral Program applies to residential properties owned and occupied by individuals who are 55 years of age or older and choose to participate in this program. Qualified owners may defer all or a portion of taxes owing after deduction of the Home Owner Grant. The deferred taxes accumulate at a prescribed low interest rate with no repayment required until the ownership of the home is transferred.

2.8 Trends in Property Taxation in Vancouver

Table 3 shows the trend over the last 15 years in the distribution of the tax burden compared to the composition of the assessment base. Because Class 1 and Class 6 account for over 90% of the assessment base (and the tax revenue) Table 3 only compares these two classes.

Class	1991		1996		2001		2006	
	Share of total assessed value	Share of taxes	Share of total assessed value	Share of taxes	Share of total assessed value	Share of taxes	Share of total assessed value	Share of taxes
1 (Residential)	73%	40%	81%	42%	79%	42%	83%	45%
6 (Business/Other)	25%	55%	18%	53%	20%	54%	16%	52%
All other classes	2%	5%	1%	5%	1%	4%	1%	3%

Table 3: Distribution of the Tax Burden, Various Years

In the following years, Council shifted some of the tax burden from the business class to the residential class: 1994, 1995, 1997, 2000, 2003 and 2006. In 2007, the City raised the overall property tax and froze non-residential property taxes at the same level they held in 2006. The result was a 1.98 percent shift of property taxes from business onto residential property classes in that year.

Although non-residential properties pay a higher share of taxes than their share of the assessment base, the relative burden has been declining. The non-residential classes paid about 60% of all taxes in 1991 but this amount declined to about 55% in 2006. The Business/Other class, which accounts for almost the entire non-residential assessment base, saw its share of taxes fall from 55% in 1991 to 53% in 1996 and then hover in the 52% to 54% range in the subsequent decade. Meanwhile, the residential class saw its share of taxes increase from about 40% to about 45% of all property taxes over this 15-year period.

Even though the business share of property tax burden has declined, the rate at which business is taxed (measured in dollars of tax per thousand dollars of value) actually increased relative to the rate at which residential property is taxed. This increase results because non-residential land values have not risen as fast as residential values. Table 4 shows the tax rate ratios by class of property over the period from 1996 to 2006, expressed as a multiple of the residential rate (which is expressed as a value of 1.0). As the table shows, in 2006 the business property tax rate was nearly 6 times the rate of residential property owners.

Class	1996	2001	2006
1 (Residential)	1.0	1.0	1.0
2 (Utilities)	10.4	10.0	13.0
4 (Major Industry)	11.6	9.9	10.7
5 (Light Industry)	9.8	4.9	5.4
6 (Business/Other)	5.5	4.9	5.8
8 (Seasonal)	1.0	1.0	1.0
9 (Farm)	1.0	1.0	1.0

Table 4: Tax Rate Ratios for Various Years

3.0 PUBLIC INPUT TO THE COMMISSION

3.1 Introduction

City Council directed the Commission to engage the community in the process of reviewing property taxation. In response to this directive, we provided two main opportunities for input:

- The first opportunity was an extensive newspaper advertising program and the creation of a website in which we invited the public to submit comments in writing.
- The second opportunity was at a series of public hearings in February 2007, where the public was invited to appear and make verbal presentations. These presentations could be accompanied by written submissions.

This section of our report summarizes the input the Commission received from the public in the form of presentations at the hearings and written submissions.

3.2 The Participants in the Consultation Process

The Commission received 27 delegations at the hearings and 40 written submissions (some of which were provided by delegations). Most of the delegations at the hearings were individuals but, in some cases, a delegation consisted of more than one person. Between 35 and 40 speakers made presentations. This number is somewhat misleading because several of the speakers represented a large number of taxpayers, as part of a coordinated effort to present their views to the Commission. For example, the Vancouver Fair Tax Coalition represents a great number of non-residential taxpayers, and in another case, 23 members of one Business Improvement Association in Vancouver wrote individual letters to the Commission.

As well, the Commission allowed the Vancouver Fair Tax Coalition more time for their group presentation and, in return, the Coalition invited only four speakers to present on its behalf.

Table 5 provides a summary of the participants in the consultation process.

Type of participant	Number of delegations	Number of written submissions
Small businesses, predominantly independent retail or service, or BIA organizations representing such businesses	9	24
Owners (or representatives) of rental residential property	2	0
Organizations	2 (Vancouver Fair Tax Coalition and BC Chamber of Commerce)	1 (Canadian Taxpayers Federation)
Individuals	14	15
Totals	27	40

Table 5: Summary of Participants in the Public Process

Among the business voices, there was a clear dominance of independent, small businesses, particularly in the retail and service sectors. Other than the submissions of organizations that represent business generally, the Commission received no specific input from the light or heavy industrial sector, the corporate sector that occupies the bulk of the office space in the City, or large retail chains.

People who own property in Vancouver but do not reside in the City made some of the submissions. At least one submission came from a person who neither resides in nor owns property in the City. Some of the submissions were made by people who own/operate businesses in leased premises in Vancouver but do not own property or do not reside in the City.

3.3 Summary of Presentations

The following summary of the presentations highlights the main themes under the two topics in our mandate – fair tax share and volatility – as well as other topics that were raised by presenters. We have made no effort in this section of the report to evaluate or corroborate the statements made by presenters.

3.4 Fair Tax Share

The main message we heard about tax shares was that business taxes are too high relative to residential property taxes. We were also told that the ratio of the property business tax rate to the residential property tax rate in Vancouver is much higher than elsewhere in the GVRD, resulting in an inequitable split between the taxes that businesses and residents pay. Some presenters felt that there is a long-standing imbalance in many municipalities in the tax split between residential and non-residential properties and that homeowners need to be made aware of this imbalance and understand that, for the property tax to be equitable, this split must change.

"At the municipal level, there is no bigger issue for our members than property taxes. Roughly half of our members identified it as the most harmful tax facing their business and two-thirds of our members identified it as the issue that should have the highest priority after the last municipal election." Canadian Federation of Independent Business Property Tax Brief, page 3

We were told that the City risks losing its small, independent business base unless it shifts the property tax balance. High property taxes were felt to be inequitable and to create a risk that small businesses will become non-viable. We were told that some provinces legislate limits on the property tax rate ratio between non-residential and residential taxes but that British Columbia does not.

Some presenters felt that business property taxes should be made more equitable by relating property taxes to the consumption of City services. They argued that businesses use fewer services than residents, so there is no justification for them to pay disproportionately higher taxes. These presenters did not consider it reasonable for businesses to subsidize the consumption of municipal services by residential properties. Moreover, if taxes are based on the services residents and businesses actually use, there will be more accountability for City expenditures because the City would only provide the services people are willing to pay for.

"Equity is defined as 'get what you pay for, pay for what you get – it should be on the basis of 'benefits received'…" Vancouver Fair Tax Coalition, Transcript, February 6, 2007, 1:30 session page 8

We also heard that the property tax burden is not fairly distributed because it is not linked to income growth, economic growth, or the consumption of services. Some thought that there should be a reasonable relationship between business income (ability to pay) and property taxes paid.

One presenter felt that property taxes should take into account more than property value. The system should consider consumption of services and should also take into account the impact of the business on the community and the environment. The "user pay" principle should apply, not only to use of services but also reflect the impact on the environment. Property taxation based on value alone ignores consumption of services but even user-pay systems ignore social and environmental costs and benefits.

"The inequity stems from an arbitrary figure (54%/46%) that city hall uses to determine the percentage of revenue that the city charges business properties vs. residential properties. The current percentage does not reflect the reality that has hit the city with the explosion of condo and residential development. The current system IS NOT sustainable." Deanna Geisheimer, Written presentation, February 5, 2007

Contrary to some of the points noted above, some presenters thought that business should pay a higher share of taxes than residential properties for reasons such as: businesses can deduct tax expenses for income tax purposes; businesses can generate income from their properties giving them the option of increasing prices to offset the rising property tax; and business properties receive more services because they are on larger, higher-volume streets.

Yet other presenters thought the current split is about right and that any shift of the tax burden toward residents would create hardship for homeowners, especially those on fixed income. Nevertheless, they felt that any further shift toward non-residential properties might be too much.

3.5 Volatility

Presentations were also made on the subject of volatility. In particular, these presenters felt that the City must deal with "hot-spots" -- areas of the city where some properties face large, unanticipated year-over-year increases in taxes. The City should mitigate large fluctuations in taxes and smooth the impacts on taxpayers. The City must find a fair and stable long-term approach that results in equitable taxation.

"Long term solutions are what we want-something to flatten the spikes, or hot spots." Vancouver Fair Tax Coalition, Transcript, page 3, February 6, 2007.

We were told that many businesses are tenants in older buildings on properties that are zoned for higher density residential and/or commercial development. Most have signed net leases, which require the tenant to pay property taxes. Escalation in land value has led to large, rapid increases in the amount of tax these tenants pay. Some participants submitted factual evidence of large, multi-year increases in property taxes paid.

The problem of high taxes is exacerbated by the unpredictability of the increases. Increases are not linked to factors related to the business (e.g. increased sales) but to land value for redevelopment, which can change rapidly over a short time. Some participants noted that the problem is particularly severe in some commercial areas where major construction work is having an impact on the volume of customers.

"I can design a business plan based on what I know, but I cannot guess on the increase of property taxes, and since I'm working on the basis of a five-year lease, I either have to lay off staff or reduce marketing, increase prices etc." Sheryl Leeson, BIA Kitsilano.

Presenters told us that high, increasing property taxes are creating a risk that the City will lose businesses. Vacancies may result and neighbourhoods will not have the local retail and service uses they desire. Even if vacancies do not rise, there will be a trend to the replacement of independent, locally-owned businesses by large chains, and this will result in a loss of individual identity and character in neighbourhoods. Although there are other financial pressures on small business, such as rising rents, it was felt that the property tax should not add to this pressure.

3.6 General Comments

In addition to the two issues in our mandate – fair tax share and volatility – we also heard other comments from the presentations.

Small Businesses

Some presentations specifically addressed issues faced by small businesses. The main point was that property tax is not related to income, so not all businesses have the same ability to absorb tax increases. We were told that the financial pressure on small businesses is causing some of them to go out of business or to relocate. Closures and relocations result in vacancies or in space being occupied by a different kind of firm, one that is more likely to be a chain, rather than a small independent business.

We were told that the City needs to realize that small businesses and small artisans make the City special and create local character. The erosion of the small independent business base leads to a decline in the livability and character of the neighborhood, either because there are not convenient retail and service businesses for residents or because the local character and diversity of independent businesses is replaced by the less interesting character of major chains.

City Budgeting

We heard comments about tax levels and City budgeting. We were told that governments, in general, take too much tax and then redistribute it on an inequitable basis. We were told that Vancouver's spending is too high, and business (which bears a disproportionate share) suffers. The City needs to do more to curtail growth in expenditures to reduce the pressure to increase taxes. Several participants noted that the City needs to keep tighter control over its budgeting and spending. The City should use a zero-based approach to budgeting. The City should monitor taxation and the impact of taxation regularly, using indicators such as comparisons with other cities and per capita levels of taxation.

Some presenters felt that the City could create more predictability and stability in taxation by changing the way it budgets. Currently, the City decides on its expense budget and then determines the amount of tax revenue needed to cover costs. Instead, we were told, the revenue side should be set first, with revenue increases limited to growth in the CPI (or a larger increase, only if approved by a referendum). Then, expenses must be made to fit within the available revenue.

Business Taxes and Ability to Pay

Another speaker commented that the mechanism for determining the property tax that these businesses pay is, by definition, not linked to or commensurate with ability to pay. The tax is driven by the redevelopment value of the land (largely its value as residential property), not the business volume of the current business occupant. Moreover, the speaker continued, the City should keep in mind that the City's property tax is not the only levy that small business pays: Other taxes and levies, collectively, create a bill that is too high for small business to bear. One participant noted that commercial property owners and business tenants cannot vote so their interests are not represented on Council.

> *"Over the past weeks and months I have been telling City Council about Geoff …and his butcher shop. I initially chose to focus on him because he epitomizes everything that is great about neighbourhoods and small businesses…Geoff faced a total 2004 property tax bill of $15,500…and we estimate 2007 to come in at $35,000. This all falls within the terms of a standard 5-year lease. We call it the hot spot phenomena….When you divide Geoff's taxes into a daily rate -- or pounds of hamburger —you see the staggering burden being faced by these tenants." Submission from Sharon Townsend, South Granville BIA. page 1*

Property Taxes and Development in Vancouver

We heard that the City's policies favour residential development over commercial development, including the conversion of commercial properties to residential. These policies, we were told, impose additional costs on the City because of the lower tax rate on residential properties and the greater costs they impose. In the view of the commercial sector, these additional costs have been made up by commercial properties. They also told us that the conversion of properties from commercial to residential leads to a net loss of revenue, and increased costs for the City and an increase in tax burden for all taxpayers.

Residential Property Taxes

Some residents (homeowners) did not want to see their taxes rise because they were concerned that they will not be able to afford them. Several people noted that, just because the value of their homes rises, does not mean their ability to pay taxes also rises. Rising residential taxes are seen as putting pressure on housing affordability, which is already a major problem in this City. A property value increase is a "paper" gain that is only realized at sale. Many people who have lived in their homes a long time cannot afford tax increases and do not feel they should have to sell their homes because of high taxes. Some were concerned that the forces that lead to value increases (population growth, investors, and wealthy people paying more) are not within their control.

With respect to rented residential property, we were told that property taxes cannot always be passed on directly to tenants because of rental housing legislation. Nevertheless, property tax increases should be limited to inflation. Property tax puts pressure on the total cost of rental housing in a City that already has an affordability problem.

Other Comments

We heard that home-based businesses do not pay business property tax, and that is not fair. We were told that the City (and other levels of government) should find ways to tax the underground economy. All individuals should pay tax, not just property owners.

One presenter talked about the market implications of property taxes. He argued, for example, that a taxation system that favours one class of property at the expense of another has an impact on relative land values. If residential taxes are "too low," residential property values are likely to be higher than they would be otherwise. Consequently, we have a system in which residential property owners are getting the benefit of low taxes, subsidized services, and rising property values.

He argued further that, in the long run, a reduction in property taxes will not necessarily produce savings for business tenants. Supply and demand forces result in the total market value (i.e. total supportable occupancy cost) for any rentable space. If taxes are lower, rent will be correspondingly higher. Landlords will benefit from lower taxes by getting higher rent, but the total cost burden on tenants will not be lower. In the short run, reductions in property taxes can help tenants who are on net leases (that fix their rent for the life of the lease but require them to pay property taxes). Once the current lease term is over, however, the benefit to tenants disappears because rents will rise.

3.7 Conclusion

The Commission appreciates all of the submissions that were made both at the public hearings and in writing. In subsequent sections of this report, we have tried, as much as possible, to address the comments that were made. Some of the general comments (for example, the comments about tax levels, municipal expenditures, and the municipal budgetary process), however, are beyond the mandate of the Commission.

4.0 EVALUATION PRINCIPLES

To evaluate the City's current policies and alternative approaches, the Commission has relied on six broad principles of taxation that are discussed in this section.

4.1 The Principles of a Reasonable Tax System

The following principles are those typically used to evaluate taxation policy:

- Fairness, based on benefits received
- Fairness, based on ability to pay
- Neutrality
- Accountability
- Stability and predictability
- Simplicity and ease of administration

Each of these principles is defined and discussed below.

These principles set out in broad terms the objectives for the design of a desirable property tax system and provide guidance in designing proposals for policy changes. Taken one by one, these principles are relatively easy to apply. However, it is not possible to design a tax system that simultaneously meets **all** of these objectives. For example, there is a difference between the benefits-received and the ability-to-pay approach to fairness. There is also, in practice, a trade-off between fairness and simplicity, and between fairness and stability. Therefore, in evaluating a tax system we must choose among the various attributes of the principles.

4.2 Fairness Based on Benefits Received

Fairness based on benefits received means that people should pay taxes according to the benefits they receive from government services. Where the beneficiaries of services can be identified and where the service is not primarily redistributive in nature, there is considerable merit in the notion that beneficiaries should pay for services. Under this principle, the distribution of taxes should correspond to the distribution of benefits. In some cases, this correspondence can be accomplished through user fees, for example, for the provision of water, solid waste collection, etc. The Commission supports the benefits-received approach for these types of services because it links expenditures to taxes/fees so that the cost of services is clearly seen by the beneficiaries.

We also recognize, however, that the benefits-received principle cannot be applied in all situations. Where individual beneficiaries cannot be identified (e.g. policing) or where the purpose of a government program or service is to promote access (e.g. parks), it is necessary to look to a different criterion of fairness: one based on ability to pay.

4.3 Fairness Based on Ability to Pay

According to the ability-to-pay principle, taxes are fair if their burden is distributed in accordance with some measure of taxpayers' ability to pay. In applying the ability-to-pay principle, a distinction is made between horizontal equity and vertical equity. Horizontal equity dictates the equal treatment of people in equal circumstances. Vertical equity considers how the burden of taxation is shared across income classes.

In determining whether the property tax meets these tests, we need to bear in mind who pays the tax. For residential taxpayers, the situation is relatively clear because most properties are occupied by their owners and are limited to personal use. For business properties (including properties rented out for accommodation purposes), the question is more complicated. The property tax may be paid by the property owner or be passed on to the business occupier. The business occupier may also be in a position to pass on taxation costs to customers in the form of higher prices, or to staff in the form of lower wages.

Even where the contractual arrangements appear to indicate who pays the tax (e.g. as in a triple net lease), market negotiations may actually lead to a different result. Where tenants have bargaining power (e.g. where there is a significant amount of empty space on the market), they can effectively pass the taxes back to the property owner by demanding a lower rent. Similarly, a cut in property taxes may simply be offset by an increase in rents, where market conditions are tight.

The question is important because it is hard to evaluate the fairness of a tax system if we do not know who ultimately pays the tax. Indeed, a lot of public debate about the fairness of property taxation stems from differences in perspective about this very issue. Unfortunately, the literature on property taxation does not provide us with clear answers to this question "who pays the business tax". We have to accept that the burden may be shared among the various parties: the property owner, the business operator, consumers, and workers. Moreover, the pattern of sharing depends on market conditions and the period of time over which negotiations may lead to a change in that pattern.

Generally, business enterprises and commercial property owners are thought to have a greater ability to pay than individuals for three reasons: they use the property to generate income; they can, in general, pass on costs to customers; and, they can deduct expenses from taxable income. These reasons are felt to provide some justification for taxing non-residential property at a higher rate than residential property. They do not, however, provide any guidance on what that differential ought to be.

4.4 Neutrality

Taxes are a cost to taxpayers who respond to the tax in the choices they make. Taxes can influence decisions, such as where to live or work, whether to invest in home improvements, where to locate a business, or other decisions. The impact of a tax on economic behaviour is a critical factor in evaluating a tax. According to the neutrality principle, a tax is favoured if the negative side effects are minimized.

It is important to note that the behavioural response to any tax is very complicated and does not always accord with the expectations of policymakers and the public. As noted above, for example, a tax on a commercial property owner may be passed on to tenants.

4.5 Accountability

Accountability means that taxes should be designed in ways that are clear so that policymakers can be made accountable to taxpayers for the cost of government services. Unlike residents, businesses do not vote in civic elections. Because of this, they do not have access to this direct mechanism for influencing public spending, policy, and taxation policy decisions. That is not to say that they cannot influence these decisions in other ways.

4.6 Stability and Predictability

Stability and predictability applies both to government and taxpayers. For government, it means that the revenues they expect to receive should be stable and predictable over time so that they can meet the ongoing costs of government. For taxpayers, it means that the tax should not result in changes over time that cannot reasonably be anticipated.

4.7 Simplicity and Ease of Administration

This principle suggests that the tax system should be simple enough for taxpayers to understand how their taxes were calculated. In terms of the administration, the time and resources devoted to administering the tax should be minimized. The two parts of this principle are related – the simpler the tax system, the easier it will be to administer.

4.8 Conclusion

The Commission supports all of these principles for a reasonable tax system. It is well recognized, however, that it will be difficult to meet all of these principles in any tax system. Although we have not rejected any of the principles, in developing our conclusions and recommendations, we have had to emphasize some more than others. In Sections 7 and 9 of this report, we present the choices we have made.

5.0 ANAYSIS OF THE TAX SHARE ISSUE

5.1 Introduction

In this Section, we ask whether the evidence supports the view that the property tax burden on business in the City of Vancouver is too high. To address this issue, we focus on the following questions: What is the current allocation of the property tax burden among residential and non-residential properties and how has this allocation changed over the last 20 years?

1. Are business property taxes high relative to the services that business receives in the City?
2. How do Vancouver business taxes compare with other major cities in Canada that Vancouver might compete with for business and investment?
3. How do Vancouver's business taxes compare with other municipalities in the GVRD Vancouver might compete with for business and investment?
4. Is there any evidence that the pace of commercial investment and development in the City has been negatively affected by property taxation?
5. Is there any evidence that the rental value or vacancy rates of commercial properties in the City have been negatively affected by property taxation?
6. Is there any evidence that businesses are leaving Vancouver because of property taxation?

5.2 What is the allocation of property taxes among residential and non-residential properties and how has it changed over time?

Tax Shares

Table 6 shows the changes in tax share between residential and non-residential properties since 1984, including the most recent shift in share authorized in 2007.

Year	Residential (%)	Non-Residential (%)
1984	39.8	60.2
1995	41.5	58.5
1998	41.9	58.1
2006	45.0	55.0
2007	47.2	52.8

Table 6: Share of Taxation Revenue

The tables in the main body of the Report provide summary information. Appendix C contains the detailed data relating to Section 5.0.

Some participants in the public hearings expressed the view that the decline in the business share of taxation simply reflects the large investment in residential properties in the City and wonder whether the decline in the share borne by non-residential properties should have been larger. They point to the dramatic change in the share of the non-residential assessment, which has fallen from 30% of the assessment base in 1984 to 16% in 2007.

Our analysis of tax shares shows the following:

- The dramatic changes in assessed values are explained by the higher escalation of the value of residential property compared to business property. Over the period 1998 to 2007, residential property values increased on average by 76.5% compared to 43.5% on average for business properties.[8]
- The annual calculation of tax share by the City is adjusted for new construction and property conversions. If new construction in the residential sector increases consistently faster than in the non-residential sector, the City's policies will lead to a corresponding increase in the share of taxes coming from the residential class. If there was no new construction in the business sector, but residential investment continued, the tax share paid by the business class would fall over time.
- The cumulative effect of the policy to shift the burden onto the residential class has been to reduce the share of business by 6.5% (1994 to 2007). This policy shift explains most of the 7.4% reduction in non-residential share since 1984.
- As part of the implementation of a new solid waste utility in 1998, Council started charging user fees for solid waste services to residential properties. The residential property tax was reduced to offset the new user fees. There was no reduction for non-residential properties because the City does not provide solid waste collection service for business. This taxation shift did not affect the overall amount of property taxes paid by the non-residential classes, but it did lead to an increase in the share of property taxes paid by these classes.
- The introduction of a sewer utility shifted taxes away from the property tax base for both residential and business taxpayers. However, the effect was greater for non-residential taxpayers and this led to an **increase** in the share of property taxes coming from business (but not the share of overall taxes).
- These two utility-based items diluted the effect of policy shifts and new construction impacts on the share levied on the non-residential sector.
- The reduction in share paid by the business class (Class 6) has not been as great as the reduction in the share paid by all of the non-residential class for this reason: in

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[8] These figures are based on our estimates of market value changes excluding new construction.

2000 when the tax rate on light industry (Class 5) was reduced to the rate on Class 6, the cost was passed on to Class 6 taxpayers.

Tax Rate Ratio

The tax rate ratio is the ratio of the tax rate on any class of property compared with the tax rate on residential properties. Although the share of taxation levied on business has declined significantly in recent years, the tax ratio is much higher today than it was twenty years ago – see Table 7.

Year	Ratio of business tax rate to residential tax rate
1984	2.6
1995	5.5
1998	5.4
2006	5.8
2007	6.15

Table 7: Tax Rate Ratios

Because of the inter-relationships between increases in assessed value in different property classes, the total amount of tax that Council wants to collect, and Council's policy about the distribution of the tax burden across classes, it is quite possible for the business tax rate ratio to increase even when the tax share is falling. A rising tax rate ratio is not always an indicator of an increasing burden of taxation on the business sector, and that was not the case in the Vancouver context. It is simply the result of the differential rates of inflation for business and residential property and a policy of maintaining tax shares in the face of these market shifts. For these reasons, the tax rate ratio is a misleading index of tax equity. Nevertheless, it is frequently cited.

Summary of Findings

The City's policy of shifting taxes away from the non-residential sector has meant that, excluding new construction, taxes paid by businesses have increased by 20% on average since 1998, while taxes paid by residences have increased by 35%. The rate of increase for business has remained in line with the rate of inflation (Vancouver CPI) since 1998; the rate of increase for residential properties has exceeded the rate of inflation.

As we shall see later in the report, tax increases on individual properties may have increased much faster or much slower than these averages. For some business properties, taxes have increased much faster than the average for the business class and the average for the residential class. However, in this section we examine average changes because this is the best way to view the issue of tax share.

5.3 Are business property taxes high relative to the services that business receives in the City?

One way to look at the appropriate share of business taxation is to compare taxes to the share of services that business receives. The City commissioned a study by the consulting firm MMK in 2006 to examine the share-of-service issue; this study was an update of a similar study published in 1995.

The MMK Report examines all City expenditures (except those incurred by the City's self-funded utilities, such as solid waste, sewer, and water). The study aimed to identify the direct beneficiaries of City expenditures by allocating direct costs to groups of consumers, including residents, non-resident employees working in the City, and visitors. The study makes the assumption that most services are consumed by (and benefit) people, rather than benefiting property. The study also included offsetting revenues in order to arrive at the net distribution of City costs among consumers of services.

Table 8 summarizes the study's conclusions concerning the share of services consumed by residential and non-residential properties.

Service	2006 Residential share	2006 Non-residential share
Fire protection	66%	34%
Parks/recreation	88%	12%
Engineering	80%	20%
Library	87%	13%
Debt/contingencies	67%	33%
Total	76%	24%

Table 8: Shares of Services Consumed by Sector: MMK Report

The 2006 study concludes that there was a decrease in the non-residential share of services consumed since 1995, falling from 29% to 24%. There was a corresponding increase in the residential share, which grew from 71% to 76%. The change in the estimated shares results from the mix of services provided by the City, from changes in the cost of those services, and changes in the way some revenue items have been allocated by the consultants conducting the study.

MMK compares consumption of services to taxes paid by the different property classes (including payments in lieu of taxes by certain exempt properties). MMK concludes that the non-residential sector pays $2.42 in taxes for each $1 of benefit received, while the residential sector pays $0.56 for each $1 of benefit. This conclusion is consistent with the viewpoint of the Vancouver Fair Tax Coalition, which has suggested that businesses subsidize the provision of services to residents because businesses pay for more than they consume and residents pay for less than they consume.

In our view, there are some inherent weaknesses in consumption studies in general. While the MMK Report is thorough and generally makes reasonable assumptions and defensible calculations, the study only looks at the direct consumption of services or the direct benefit from services. There is an important indirect dimension, however, that needs to be considered.

The quality of life in a city, the perceived level of safety, the availability of a high quality park and recreation system, and the provision and maintenance of high quality infrastructure are very important factors in attracting skilled labour to a community. Business depends on the community's ability to attract labour, especially in sectors of the economy that employ highly mobile and highly skilled knowledge workers who look at quality of life as a key factor in their decisions about where to live or to start companies. This benefit to business is not captured in a direct measure of consumption.

We acknowledge that it is very hard to measure indirect consumption or indirect benefits and any such analysis would necessarily involve many assumptions, judgments, and subjective interpretations that would be open to debate. Nonetheless, in our view there are clear indirect benefits to the business community, and the total benefit to the business community is greater than the share of direct benefit estimated by MMK. This does not mean that business is paying the "right" share, but it does mean that the extent of what the business community calls a subsidy is probably less than the amount implied by the MMK Report findings.

Another key consideration not included in the MMK Report is that property tax is a deductible expense, for income tax purposes, for taxable businesses. The Vancouver Fair Tax Coalition suggested to us that adjusting for this tax benefit would shift the effective consumption of services by approximately 8 percentage points. This shift would suggest that in 2006 the business share of services would rise to about 32% (up from 24% as measured by MMK).[9]

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[9] There are other income tax considerations that have not been factored in, such as the non-taxation of capital gains on the sale of a principal residence.

Summary of Findings

The consumption approach provides one measure of an appropriate share of taxation – one linked to the benefits received. We agree that one principle of a fair tax system is that there should be a relationship between tax paid and benefits received.

However, there are other factors and principles to be considered, so consumption cannot be the only determinant of tax. As well, because it does not measure indirect benefit, the consumption approach could be used to set a lower bound on the business share of taxation but not an upper bound.

5.4 How do Vancouver business taxes compare with other major cities in Canada that Vancouver might compete with for business and investment?

The business community has expressed concern that a high rate of business property taxation in Vancouver is making the City less competitive in attracting employers and investors.

To some degree, Vancouver competes with other urban centres in Canada for employers. Head offices, for example, might weigh the advantages and disadvantages of locating in Vancouver compared to Calgary or Toronto. The property tax is only one factor in business location decisions. These decisions are based on availability of skilled labour, access to transportation, total cost of doing business, relationships with other firms, target markets, quality of life, and other factors.

In our view, the inter-metropolitan competition for business is not likely to involve retail, service, or locally-oriented businesses that serve a community, sub-region, or regional trade area. Inter-metropolitan competition is only an issue for businesses that actually have location options. For this reason, we have selected high quality, downtown office space as an indicator of the impact of property tax on the competitive advantage or disadvantage of a local economy.

Comparative studies of property taxation across jurisdictions typically look at simple indicators, such as the business property tax rate or the ratio between non-residential and residential tax rates. In our view, these indicators can be misleading. Cities across Canada vary in some fundamental respects when it comes to comparing property tax:

- Assessed values can be quite different. A business may not care if the nominal tax rate is very high if the rate is applied to an assessed value that is very low, either because market values are low or because property assessments are not up-to-date.
- Revenue structures can be quite different across jurisdictions. Some rely on user fees and utility taxes to a greater degree to finance local services. Some charge business taxes in addition to property taxes.
- The expenditure responsibilities of municipalities are not the same in each location.

We decided to look at the tax-related measure that we think business would consider in weighing alternative metropolitan locations: the property tax per square foot of occupied space. We also compared property taxes per square foot to total occupancy cost. We examined selected high quality office buildings in the downtowns of four Canadian cities: Vancouver, Calgary, Winnipeg and Toronto.

In each City we identified three or four high-quality downtown office buildings. For each building, we obtained information on typical rent rates, typical operating costs, and levels of municipal property taxation. In Calgary and Winnipeg, we also included the municipal business tax, which is levied in addition to the property tax. Table 9 summarizes the cross-city comparisons. For Vancouver, the figures include regional and transit taxes to ensure a closer comparison to the services provided by other cities. Details can be found in Appendix C.

	Vancouver	Toronto	Calgary	Winnipeg
Local Govt Property Tax per sq.ft.	$3.54 to $4.90	$7.04 to $7.19	$3.52 to $4.70	$1.40 to $2.03
Business Tax per sq.ft.	n/a	n/a	$2.34	$0.78 to $1.40
Total Local Levy per sq.ft.	$3.54 to $4.90	$7.04 to $7.19	$5.86 to $7.05	$1.70 to $3.42
Estimated Current Market Gross Rental Rate per sq.ft.	$46 to $55	$54 to $55	$60.00	$21 to $32
Tax as a Percentage of Rental Rate	8%	13%	11%	10%

Table 9: Comparing Property Taxes Per Sq. Ft. across Canadian Cities

Our principal findings are:

- Total city-levied property taxes per square foot of occupied office space are lower in Vancouver than in Calgary or Toronto but higher than in Winnipeg.
- Total occupancy costs, measured as rent plus all operating costs including all property taxation, are higher in Calgary and Toronto than in Vancouver. The difference in total occupancy cost, presented here as gross rent per sq ft, is greater than the difference in tax.

Of the cities we analyzed, only Winnipeg offers a lower total occupancy cost and a lower property tax cost compared with downtown office costs in Vancouver.

Summary of Findings

Municipal property taxes for quality office buildings are lower in Vancouver than in Calgary or Toronto. Total occupancy costs are also lower.

In our view, property tax differences are unlikely to be a major factor in making business location decisions across the country. To the extent that office-based firms select Alberta or Ontario over BC, factors other than property tax are at work.

5.5 How do Vancouver business taxes compare with other municipalities in the GVRD that Vancouver might compete with for business and investment?

Within the GVRD, there is a degree of competition among municipalities to attract commercial and industrial employers and investment. Many firms are predisposed to locate in the City of Vancouver or in one of the suburban municipalities for such reasons as image, proximity to other firms, access to labour, availability of suppliers and amenities, transportation requirements, and residence of managers and employees. There are some firms, however, that have flexibility in their location. These firms will look for factors that make one location more attractive than another. Occupancy costs (including rent and property taxes, for example) will be one of these factors. We looked at a variety of indicators that may show whether taxes on business are high in Vancouver relative to other GVRD municipalities.

Share of Taxes

The first indicator we considered is the share of total property taxes collected from the business class of properties. Table 10 compares the main GVRD municipalities in terms of the allocation of total tax among residential, business, and other property classes.

Municipality	Residential	Business	Other	Total
Vancouver	45%	52%	3%	100%
Richmond	50%	45%	5%	100%
Burnaby	47%	41%	12%	100%
Langley City	54%	41%	5%	100%
North Vancouver City	49%	39%	12%	100%
Coquitlam	56%	38%	6%	100%
New Westminster	59%	29%	11%	100%
Delta	54%	29%	16%	100%
Surrey	70%	25%	5%	100%
Total	**55%**	**38%**	**7%**	**100%**

Table 10: Comparing Municipal Property Tax Shares by Tax Class, 2006

Vancouver collects a larger share of taxes from business property than other communities. This reflects, in part, a policy decision on the part of the City, but it also reflects the concentration of business properties within the City's boundaries.

In 2006, the City of Vancouver collected about 55% of its tax revenue from non-residential properties, the highest share in the region. However, Burnaby and Richmond come in at 53% and 50% respectively, not that far behind. These two municipalities are probably Vancouver's greatest competitors for many businesses, as the three communities share some key attributes, including: proximity to the international airport, proximity to ports, central location within the region, good transit service, and relatively high land values compared to outlying municipalities, such as Surrey or Delta.

Taxes Per Capita

The second indicator we considered is total tax revenue collected relative to population or taxes per capita. Table 11 compares selected GVRD municipalities in terms of total property taxes (from all classes) per capita.

Municipality	Residential	Business	Other	Total
Vancouver	$364	$419	$28	$812
Richmond	$349	$313	$37	$699
Burnaby	$342	$293	$85	$721
North Vancouver City	$353	$277	$89	$719
Coquitlam	$374	$256	$38	$669
Langley City	$336	$252	$31	$620
Delta	$409	$221	$123	$753
New Westminster	$424	$211	$81	$717
Langley District	$389	$187	$57	$633
Surrey	$268	$98	$20	$385
All GVRD municipalities	**$370**	**$251**	**$46**	**$667**

Table 11: Comparing Municipal Property Taxes per Capita, 2006

Total taxes per capita in 2006 were highest in Vancouver compared to the other GVRD municipalities in Table 11 and considerably higher than the average for all GVRD municipalities.[10] On the other hand, residential property taxes per capita in Vancouver, are relatively close to the regional average. Still, business taxes per capita in Vancouver are considerably higher than in other GVRD municipalities.

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[10] Differential property taxes could be the result of several factors, such as differences in spending levels and reliance on other revenue sources.

The difference in business taxes per capita is only partly explained by the higher level of property taxes overall. It is possible that Vancouver's business taxes per capita are higher than average for the region because Vancouver, as a 'core city' has a higher level of commercial investment per capita than other areas. We have investigated this possibility in Table 12.

Table 12 compares taxable assessed values in (business) Class 6 relative to population for selected municipalities. This table shows Vancouver with a high level of per capita assessment but not the highest in the region. This comparison is influenced by differences in land value, which are much higher in Vancouver than in other municipalities.

Municipality	Taxable Assessed Value in the Business Class per capita
Richmond	$29,466
Vancouver*	$29,342
North Vancouver City	$26,525
Burnaby	$23,908
Langley City	$23,081
Delta	$17,513
Coquitlam	$14,443
New Westminster	$12,045
Surrey	$10,772
Total	**$19,733**

*Vancouver is based on assessed values before averaging

Table 12: Comparing Class 6 Taxable Assessment per Capita, 2006

Another way to look at this issue is to compare the taxable assessed values of improvements for properties across communities in Class 6 and Class 1. To avoid differences attributable to land values, Table 13 compares improvement values only. By looking only at improvements, we remove the impact of differences in land values.

Municipality	Total
Vancouver	25%
Richmond	30%
Burnaby	32%
Surrey	15%
All GVRD municipalities	20%

Vancouver entry is based on assessed values before averaging

Table 13: Comparing Ratio of Class 6 Improvements to Class 1 improvements, 2006

This indicator confirms that the proportion of commercial investment in Vancouver is higher than average, but it also suggests that Burnaby and Richmond have a higher concentration of commercial investment relative to residential investment than does Vancouver. Therefore, Vancouver's greater reliance on business taxes than Burnaby or Richmond is explained by a policy decision, not by a greater concentration of business investment.

Tax Rates

Table 14 compares Class 6 property tax rates across the GVRD. Vancouver levies one of the highest business tax rates in the region and this has been the case for many years. Since property values are generally higher in Vancouver than in other parts of the GVRD, higher tax rates imply higher tax levels on commercial properties.

Municipality	2006	2005	2004	2003	2002
Burnaby	12.27	12.97	13.71	13.66	13.32
Coquitlam	17.73	18.90	19.33	19.11	18.30
Delta	12.62	12.86	13.12	13.95	13.64
Langley City	10.92	11.52	12.02	12.02	11.88
New Westminster	17.54	17.76	19.15	18.74	18.30
North Vancouver City	10.44	11.17	11.32	11.39	11.22
Richmond	10.62	11.051	11.30	11.18	10.92
Surrey	9.08	9.50	9.87	9.62	9.37
Vancouver	15.48	16.44	16.75	16.37	15.48

Table 14: Comparing Class 6 Property Tax Rates

Taxes per Square Foot

The next indicator we examined is the property tax paid by various business types, expressed as dollars of tax per square foot of occupied space. We use this indicator because in our view, business is most likely to look at the tax cost per square foot.

We compare property taxes per square foot of occupied space for a sample of several different kinds of properties for Vancouver, Richmond, and Burnaby. We selected these two adjacent municipalities, located in the core of the region, because they have many of the same advantages and disadvantages for businesses choosing a location. Although only a relatively small number of properties are compared, we have tried to identify similar properties in each jurisdiction.

Table 15 compares a selection of high quality office buildings in high density business environments (downtown Vancouver, Metrotown in Burnaby, and the Town Centre area of Richmond).

City	Total Floor Area sq ft	2007 Taxes per Square Foot of Floor Area	Estimated Total Current Occupancy Costs Per Square Foot	Taxes as a Share of Occupancy Costs
Vancouver	653,414	$4.24	$54	7.9%
Vancouver	142,935	$2.07	$35	5.9%
Vancouver	255,167	$3.07	$46	6.7%
Burnaby	263,639	$2.20	$43	5.1%
Burnaby	97,162	$1.91	$30	6.4%
Burnaby	159,860	$2.10	$30	7.0%
Richmond	112,867	$2.16	$25	8.6%
Richmond	109,374	$1.66	$27	6.1%
Richmond	100,565	$1.71	$26	6.6%

Table 15: Comparing Occupancy Costs in Office Buildings

Table 15 compares total occupancy cost[11] and property tax, expressed as dollars per square foot per year of occupied space. Both taxes and occupancy costs per sq.ft. are much higher for the Vancouver buildings than for the buildings in Burnaby and Richmond. The difference in tax, however, is smaller than the difference in occupancy costs.

Table 16 compares total occupancy cost and property taxes for office space in office parks in Vancouver, Burnaby, and Richmond. While the available office spaces in the three municipalities are perhaps not as directly comparable as in the downtown examples, these examples represent moderate quality space in non-downtown, suburban-character environments.

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[11] Occupancy costs include base rent, property taxes, and building operating costs included in the lease rate.

City	Description	Total Floor Area sq ft	2007 Taxes per Square Foot of Floor Area	Estimated Total Current Occupancy Costs Per Square Foot	Taxes as a Share of Occupancy Costs,
Vancouver	Office Bldg	246,960	$1.51	$24	6.3%
Vancouver	Office Park Bldg	134,452	$1.62	$25 to $30	5.9%
Vancouver	Office Bldg	35,930	$1.68	$25 to $30	6.1%
Vancouver	Office Bldg	151,136	$2.93	$25 to $30	10.7%
Burnaby	Office Bldg	215,500	$1.22	$27	4.5%
Burnaby	Office Park Bldg	121,408	$1.40	$26	5.4%
Burnaby	Office Park Bldg	90,015	$2.19	$30	7.3%
Burnaby	Office Park Bldg	80,931	$1.96	$25 to $30	7.1%
Richmond	Office Park Bldg	60,408	$1.09	$23	4.7%
Richmond	Office Park Bldg	83,350	$1.66	$26	6.4%
Richmond	Office Park Bldg	45,288	$1.06	$25 to $30	3.9%

Table 16: Comparing Occupancy Costs in Suburban Offices and Office Parks 2007

Vancouver's tax costs are somewhat higher than the other jurisdictions but there is not much difference in occupancy costs. Table 16 also shows that the variation in taxes per square foot within municipalities is greater than the variation across municipalities among the properties selected for this analysis.

A comparison of Table 15 and Table 16 shows that the office parks in Vancouver carry a lower tax cost per square foot than the town centre buildings in Richmond and Burnaby. In other words, a firm basing its location decision solely on property taxes could find space in Vancouver with lower taxes than in the suburban town centres.

Table 17 looks at a selection of light industrial properties. Taxes per square foot are higher in Vancouver than in Richmond and Burnaby; however, the absolute differences are not large.

City	Total Floor Area Sq Ft	2007 Taxes per Square Foot of Floor Area	Estimated Total Current Occupancy Costs Per Square Foot	Taxes as a Share of Occupancy Costs
Vancouver	117,300	$0.83	$10.00 to $11.00	7.9%
Vancouver	175,928	$0.73	$10.00 to $11.00	7.0%
Vancouver	66,513	$0.85	$10.31	8.2%
Vancouver	27,845	$1.07	$12.25	8.7%
Burnaby	62,188	$0.77	$9.78	7.9%
Burnaby	31,880	$0.65	$9.15	7.1%
Burnaby	34,322	$0.73	$9.00 to $10.00	7.7%
Richmond	94,334	$0.76	$9.06	8.4%
Richmond	48,200	$0.83	$9.51	8.7%
Richmond	165,753	$0.54	$9.25	5.8%

Table 17: Comparing Occupancy Costs in Industrial Buildings

Table 18 compares property taxes per square foot for a major retail chain with similar single outlets in Vancouver, Burnaby, and Richmond. The retailer pays more taxes per square foot in its Vancouver outlet and almost identical taxes per square foot in its Richmond and Burnaby locations.

City	Floor Area	2007 Taxes per Square Foot of Floor Area
Vancouver	120,341	$1.75
Burnaby	129,354	$1.46
Richmond	104,459	$1.41

Table 18: Comparing Taxes across Locations for Major Retail Chain Store

Table 19 compares property taxes per square foot for a sample of retail outlets in Vancouver, Burnaby, and Richmond. The comparisons are less conclusive than those shown in earlier Tables because, within Vancouver, the tax paid per square foot varies widely. Taxes on the east side of the City are no higher than those in Burnaby and Richmond. However, on the west side and downtown, taxes are generally higher. [12]

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[12] The wide range in taxes paid per square foot inside the City of Vancouver is discussed further in Appendix C.

City	Total Floor Area Sq Ft	2007 Taxes per Square Foot of Floor Area
Vancouver - Core	13,166	$3.41
Vancouver - Core	13,198	$7.24
Vancouver - West Side	14,006	$5.83
Vancouver - West Side	26,951	$4.01
Vancouver - West Side	27,849	$3.01
Vancouver - East Side	1,566	$3.46
Vancouver - East Side	2,563	$3.95
Vancouver - East Side	4,425	$2.19
Vancouver - East Side	2,145	$3.14
Burnaby	1,703	$3.85
Burnaby	5,768	$2.84
Burnaby	2,100	$5.23
Burnaby	3,983	$3.25
Burnaby	2,845	$2.11
Burnaby	1,918	$3.31
Burnaby	6,339	$3.27
Richmond	5,316	$2.25
Richmond	3,880	$3.35
Richmond	5,977	$2.15

Table 19: Comparing Taxes across Locations for Independent Retail Properties

Summary of Findings

We have found that businesses of all types – office, industrial, retail – do pay more tax per square foot in Vancouver than in Burnaby or Richmond. We have also found that rent per square foot varies among these jurisdictions and that, for many businesses, the tax differential is less than the differential in rent.

Because we have selected only a few properties for comparison, we cannot be sure that the results are representative of all properties. Moreover, we know that taxes per square foot vary widely across properties within each jurisdiction. Nevertheless, we believe the comparisons support the other evidence presented in this section that businesses pay a higher level of property taxes in the City of Vancouver compared with other municipalities in the GVRD.

5.6 Is there any evidence that the pace of commercial investment and development in the City has been negatively affected by property taxation?

One of the concerns the business community articulated is that Vancouver's comparatively high tax levels will erode the City's attractiveness for business, which will make it harder to attract and retain employers and harder to encourage commercial and industrial investment.

We have investigated indicators of the health of the commercial and industrial real estate market, the pace of investment in Vancouver, and the extent to which Vancouver's economic base might have declined.

The first indicator we examined is the pattern of investment in commercial real estate over the past 10 years, as evidenced by municipal building permit data and new construction data provided by the BC Assessment Authority. We have also examined the pattern over time in Vancouver and compared it with other GVRD municipalities.

Figure 1 shows the value of building permits issued by the City of Vancouver from 1998 to 2006. Since 1998, investment in residential property has increased faster than commercial – but commercial has picked up the pace in recent years. Building permit data captures renovations and additions, as well as new stand-alone construction. It does not include land value. Building permit values may understate actual building costs.

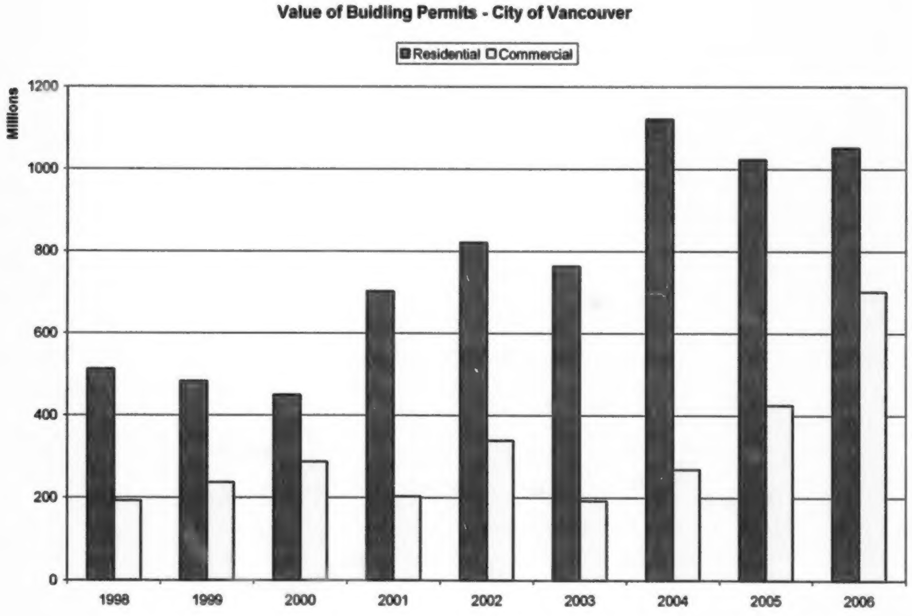

Figure 1: Value of Building Permits – City of Vancouver

It could be argued that the level of commercial investment is lower than it would have been had business property taxes been lower, but it is difficult to argue that there has been an actual decline. Indeed, over the last few years, the pace of commercial development has increased.

We next examined building permit trends in selected GVRD municipalities, as shown in Table 20. Over the period 1998 to 2006, Vancouver had the highest level of investment in commercial properties among the municipalities examined. While the Vancouver ratio of commercial to residential construction is lower than in Burnaby and Richmond, it is still greater than the GVRD average.

	Commercial ($millions)	Residential ($millions)	Ratio of Commercial to Residential
Vancouver	$2,846	$6,926	41%
Surrey	$1,315	$5,887	22%
Burnaby	$920	$1,975	47%
Richmond	$866	$1,773	49%
Other Areas	$2,036	$6,975	29%
GVRD	$7,982	$23,535	34%

Table 20: Comparing the Value of Building Permits Issued, 1998-2006

We looked at BC Assessment data on non-market changes to the assessment rolls. Most of this non-market change is new construction, although it also includes conversions from one property class to another. Figure 2 shows the pattern of non-market changes in the residential tax class and the business tax class over the period from 1985 to 2006. This chart shows a strong cyclical pattern of investment for residential property and a steadier pattern for the business class. The ratio of business to residential assessment has declined over the period 1985 to 2006. However, some care must be taken in interpreting this pattern, because the figures for non-market changes include changes in land values as well as changes in improvement values. Therefore, the growth in residential values reflects the faster pace of growth in residential land prices.

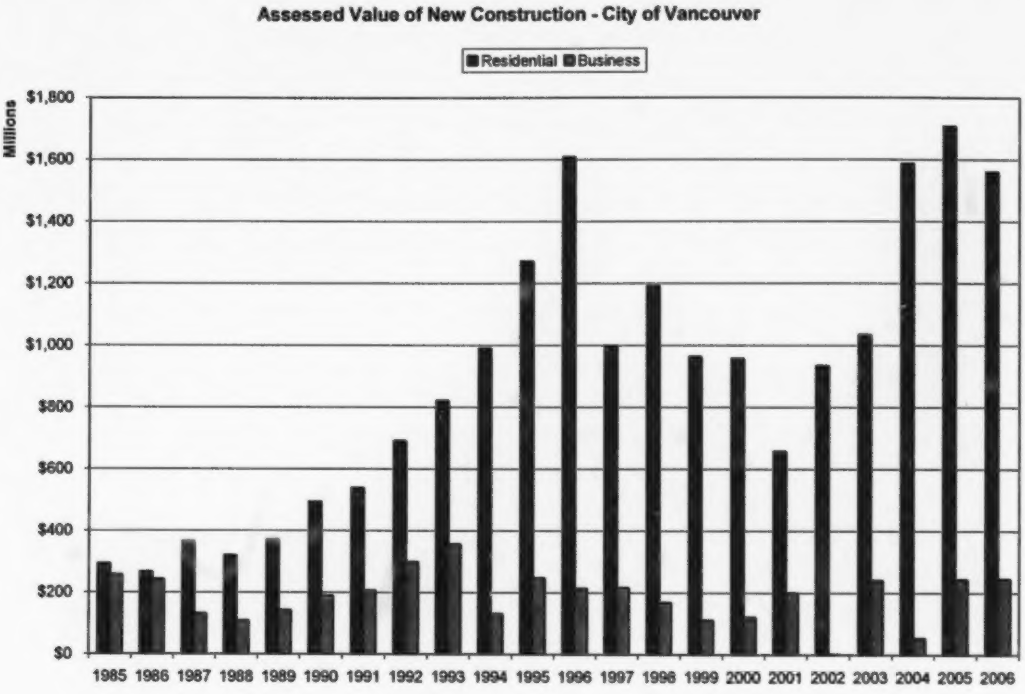

Figure 2: Assessed Value of New Construction – City of Vancouver

One way to adjust for changing land values is to examine the relationship between new construction values and the value of existing properties. Figure 3 shows the ratio of new construction to total assessed value for the residential and business classes. This figure suggests a downward trend for Class 6 (business) in the ratio of new construction to total assessment. Moreover, since 1994 the ratio has been lower than the comparable ratio for the residential class. However, the recent years show a revival of investment in the business class similar to that suggested by building permit data.

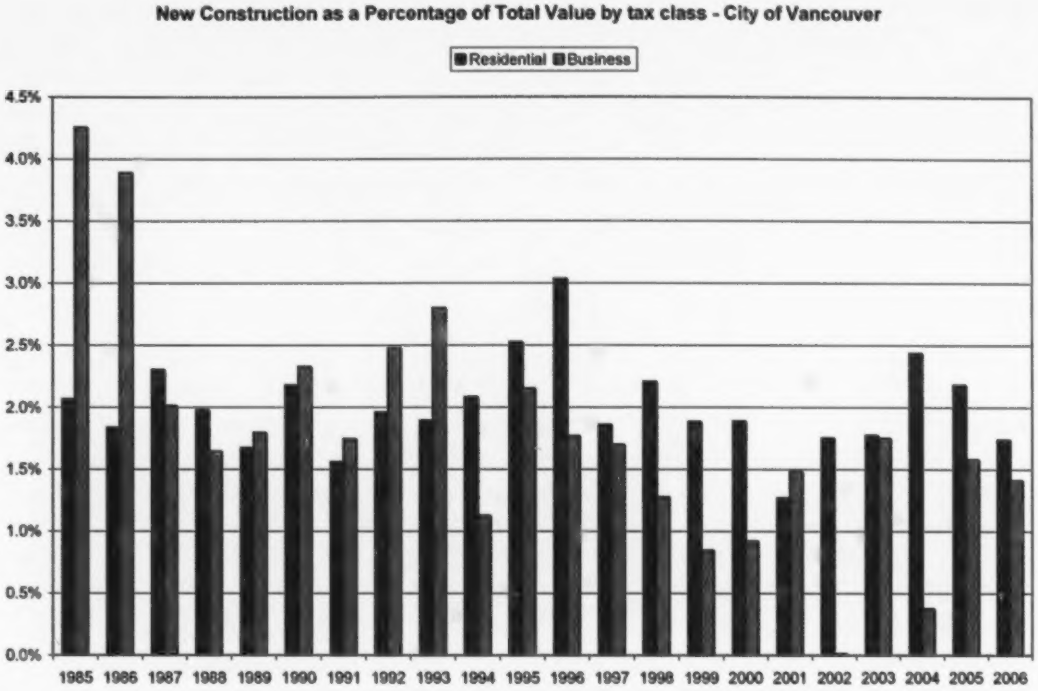

Figure 3: New Constructions as a Percentage of Total Value by tax class
City of Vancouver

Recent work undertaken for the "Metropolitan Core Jobs and Economy Land Use Plan"[13] has investigated the pattern of non-residential investment in the core area of the City. This analysis does not support the contention that the pace of residential investment in the core areas has displaced non-residential investment. The work on this study suggests that:

- Downtown job growth has continued at a rate unaffected by residential growth.
- Since 2000, 2 million square feet of office space have been or are being constructed in 7 major buildings.
- Sites exist to accommodate new office buildings.
- The city continues to have 64 jobs per 100 residents while the rest of the region has 46 jobs per 100 residents.

The same study confirms that residential development in the core area (as measured by sq ft of constructed space) has outstripped non-residential development. However, the change is attributable to an acceleration in residential development, not a reduction in non-residential development.

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[13] City of Vancouver, "Metropolitan Core Jobs and Economy Land Use Plan," Myth and Fact, April 23, 2007.

The study confirms that, over the past 30 years, the rate of population and job growth in Vancouver has not been as rapid as the rate in other parts of the region. Nevertheless, the City continues to retain the majority of regionally significant jobs as evidenced by the fact that the largest aggregation of office space and the most head offices continues to be concentrated in the Metro Core.

Summary of Findings

The bleak picture of rapidly declining commercial investment in Vancouver presented by some participants in the public hearings is not borne out by the evidence. It is true that there has been a decline in commercial investment relative to residential investment in the City. It is also true that there has been strong commercial investment in other municipalities in the GVRD. Nevertheless, the level of commercial investment in the City remains significant.

5.7 Is there any evidence that the rental value or vacancy rates of commercial properties in the City have been negatively affected by property taxation?

If tax rates on non-residential property are a potential cause of reduced economic strength, it would follow that occupancy rates might be lower – or vacancy rates higher – in commercial and industrial real estate, leading to lower rent rates. To investigate this possibility, we reviewed a sample of publicly-available real estate market reports and surveys produced by major commercial real estate brokerage firms active in Greater Vancouver.

Table 21 summarizes the comments of one brokerage firm on the office market in Vancouver, Burnaby, and Richmond over the last 10 years. Similar tables are provided for the retail and light industrial markets in Appendix C.

Quarter	YEAR	(Downtown) Vancouver		Burnaby		Richmond	
		Vacancy Rate	Lease Rate ($) per Square Foot	Vacancy Rate	Lease Rate ($) per Square Foot	Vacancy Rate	Lease Rate ($) per Square Foot
Q2	2000	2.2%	20.89	9.1%	15.18	8.2%	13.61
N/A	2001	N/A	N/A	N/A	N/A	N/A	N/A
N/A	2002	N/A	N/A	N/A	N/A	N/A	N/A
Q4	2003	12.5%	19.2	25.2%	15.52	24.6%	13.65
Q2	2004	11.0%	18.49	23.9%	15.71	25.1%	13.65
Q4	2005	6.3%	21.17	9.8%	15.54	21.5%	13.55
Q4	2006	3.1%	23.13	6.8%	17.48	17.1%	13.95
Q1	2007	2.3%	23.9	15.1%	16.16	17.8%	13.96

Table 21: Comparing Vacancy and Lease Rates – Office Market

The table is not complete because the firm reporting these data did not produce a full report on each type of real estate every year. However, we can conclude from the information available that:

- Office rents in downtown Vancouver today are at the highest level they have reached in the period from 2000 to 2007.
- Vacancy rates in downtown Vancouver today are close to their lowest level in the period from 2000 to 2007 and are lower than in Burnaby and Richmond.

Summary of Findings

The market for commercial space in the City of Vancouver is strong and, if property taxes are having an impact on the market for commercial space, it is not clear that it has been significant. This finding may not be the case for all properties in all locations, however, as we will discuss later in the report.

5.8 Overall Conclusions on the Tax Share Issue

The evidence is clear: although the share of property taxes paid by business has been declining over the past decade, the indicators in this section suggest that business taxes in Vancouver are high relative to residential taxes and relative to business taxes in neighbouring GVRD jurisdictions. What is less clear is the appropriate indicator to use to determine the appropriate tax share. Each of the indicators uses a different basis for estimating the differential and, not surprisingly, provides different estimates of its extent.

What is also less clear is the impact of the higher property taxes on commercial development in Vancouver. There is little evidence to suggest that property taxes have had a negative impact on business investment or the demand for commercial space. Indeed, competition for commercial space has kept market rents higher in the City than in other GVRD locations.

In section 7, we will recommend a long term policy that will define a "fair tax" for commercial properties. But before doing so, in section 6 we consider some policy options that have been proposed to the Commission.

6.0 TAX SHARE - POLICY OPTIONS

6.1 Introduction

The most straightforward method of reducing the tax burden on non-residential Class 5 and Class 6 properties is to lower the tax share on those classes relative to the residential taxes. This approach, which is currently used by the City, benefits all properties in these two classes in proportion to their assessed value.

Other approaches that were recommended to the Commission – creating a small business class and giving a basic tax credit -- address only a subset of properties in these two classes. In this section we discuss these two methods of targeting tax relief. Because these options are outside the legislative authority of the City, they would need the support of the Province and Vancouver City Council to implement them.

6.2 Creating a Small Business Class

During our hearings we heard that the tax burden on small businesses is particularly severe. We heard that the level of taxes small businesses must pay is too high and that volatility had more significant consequences for small businesses than for large businesses.

Some participants proposed the creation of a small business class with a lower tax rate than the other business classes. If the tax rate for small businesses alone was reduced, the increase in taxes on the residential class could be smaller than if the rate for all business properties was reduced. Although we appreciate the underlying objectives of this proposal, we see a number of difficulties with the concept of creating a small business class. The concerns related to tax share are discussed below; the concerns related to volatility are discussed in Section 9.

The definition of a small business

A major problem with introducing a small business class is how to define a small business. Is it measured in terms of total space occupied, gross sales, net assets, profits, number of employees or other factors? A large property may contain one large business or many small businesses. A small property may be one of many small properties owned by a large business (for example, banks or chain stores).

Even having agreed upon a definition of a small business, there may not be a close relationship between small business and the total space they occupy. Consider two otherwise identical high-rise office buildings. One building may be occupied by a single company while the other is occupied by numerous small businesses, each renting a share of a large property. Should one property enjoy lower taxes simply because there are many small tenants rather than one large tenant in the building? If a small business class were to be created, would a retailer that had five small stores still be considered a "small business"?

Unless the landlord or tenants were to file supplemental information, the BC Assessment Authority could not create a "small business" class except by reference to the actual use, physical size, or assessed value of the properties on record.

Equity among small businesses and other businesses

Using square footage or assessed value as a criterion for defining a "small business" would by itself create significant inequities. Not all small businesses have the same capacity to pay property taxes because some are more successful than others. Moreover, many large businesses also have difficulty paying property taxes.

The high occupancy levels we see throughout the City suggests that when small businesses leave or cease to be in business, the space they vacate is subsequently occupied either by other small businesses or by large businesses. Assisting all small businesses does not address the specific impacts on individual businesses.

6.3 Implementing a Basic Business Tax Credit

Another way of directing assistance to small business is to provide a basic tax credit on all business properties. The credit would be calculated as a percentage of municipal taxes payable up to dollar limit. Because the dollar value of the credit is limited, it would provide greater proportional tax relief to smaller properties than larger properties.

The impact of the exemption is complicated by the possibility that one small business may have several sites and receive the exemption on each site, whereas another business may be concentrated in one site and only get one exemption.

There are many small businesses that are very successful. Some may occupy quite expensive space while others occupy less expensive space. Yet the basic exemption would have a differential impact on the two businesses.

Finally, this proposal suffers from the same problems of definition and equity as the small business class proposal described above. The basic business tax credit, however, has the advantage that it can be implemented by the City without requiring an amendment to the provincial property class system.

6.4 Conclusion

While appreciating the concerns expressed about the impact of property taxes on some small businesses, the Commission, cannot support either of the proposals discussed in this section.

7.0 CONCLUSIONS AND RECOMMENDATIONS – TAX SHARE ISSUE

The Commission was asked to recommend a long term policy to the Vancouver City Council that will define a "fair tax" for commercial property taxpayers. We were asked to address the perceived inequity in the share of the City of Vancouver's property tax levy that is paid by the non-residential classes, as compared to the share paid by the residential property class. In this section we present our conclusions and recommendations on the tax share issue.

7.1 Is the current tax share fair?

Our review of tax principles and the property tax literature did not allow us to come up with one single, clear indicator of what is a fair tax share. There are different views on what is considered fair and other indicators that need to be considered in designing a suitable tax system.

The Vancouver Fair Tax Coalition and others have recommended that the City adopt consumption of services as the primary indicator of fairness. This measure compares the municipal property taxes paid to the benefits received from municipal government services for each type of property. Although the Commission agrees that there is merit to this approach, we feel that there are inherent weaknesses in consumption studies generally. In particular, the analysis only considers the direct benefits from municipal services and not the indirect benefits enjoyed by non-residential properties (such as the quality of life factors that influence business location decisions and the ability to attract skilled labour). As a result, the estimates of share tend to be considerably lower than the level of benefit actually received by business.

The other traditional principle of fairness, the ability to pay, provides some guidance on the level of taxes that should be paid by individual properties **within** a class but, unfortunately, does not provide us with a guide to the sharing of taxes across classes.

Our Conclusion: The Commission agrees that the consumption approach is a reasonable basis for determining the share of taxes to be paid by business but cannot endorse the specific findings of a consumption study based on **direct** benefits alone. In the absence of evidence on indirect benefits, we can only conclude that the appropriate sharing is likely to be lower than the current share. Given this ambiguity on the issue of fairness, the Commission has had to rely on other criteria to inform its recommendations.

7.2 Does the tax share paid by business compromise Vancouver's competitiveness?

The Commission believes that the analysis in Section 5 of this report clearly shows that current property tax levels in Vancouver do not put it at a competitive disadvantage with Toronto or Calgary, the other major business centres in the country. However, the literature indicates that property tax differentials are not a significant factor in business location decisions between metropolitan regions because other factors (such as access to skilled labour and transportation networks, for example) are much more important to that decision. For this reason, we have not put significant weight on this finding in our determination of whether business property taxes are high in Vancouver.

In contrast, the literature suggests that tax differentials **within a region**, such as within the GVRD, are important determinants of business location decisions. We have examined various indicators and found convincing evidence that the tax share, tax rate and the tax levels in Vancouver are all relatively high, compared with neighbouring jurisdictions.

Our Conclusion: Even though the differences in tax costs are frequently less than the differences in rent, we are concerned that a sustained pattern of high business property taxes will compromise Vancouver's ability to remain competitive within the region.

7.3 Is the tax share paid by business having a negative impact on commercial development in Vancouver?

Given that business property taxes are higher in Vancouver than in neighbouring municipalities, the Commission was concerned about the impact of these tax levels on commercial development in the City. We examined a variety of indicators of business activity.

While commercial investment has not kept pace with residential investment, building permit data and BC Assessment's new construction data show a robust level of commercial investment in the City of Vancouver over the last 10 years. This finding is consistent with the results of the study on "Metropolitan Core Jobs and Economy Land Use Plan", which concluded that the pace of residential development in the core areas of the City has not displaced non-residential investment.

Occupancy rates for commercial and industrial properties have generally increased in the City of Vancouver over the last decade. Office rents in downtown Vancouver are at their highest level in a decade. This pattern of market activity is inconsistent with a commercial sector in decline.

During the public hearings, the Commission did hear that small businesses are being forced out of business and out of their existing locations in part because of high taxes. We accept the fact that there has been turnover in many established small businesses operating in areas of the City where occupancy costs have increased considerably. In general, however, we do not see this as a tax issue, but rather as an issue of competition among commercial tenants for limited space. Much of the turnover is the result of the availability of new tenants who can afford to pay higher rents. There can be significant short-term taxation pressures, however, and we return to this issue in our discussion of volatility.

Our Conclusion: Even though the analysis undertaken does not provide evidence of a decline in commercial investment in the City, we are aware that the pace of commercial and industrial investment has increased in neighbouring jurisdictions. We are concerned, therefore, that the relatively high tax levels in the City have the **potential** to impact future business location decisions in the region.

7.4 Does the current share paid by business enhance accountability?

The non-residential property tax is inherently less appropriate for financing local government expenditures than the residential property tax because business owners do not vote. Moreover, taxes on business properties may be partially exported to residents of other jurisdictions who are consumers of the products or services produced or who are owners of the business. Tax exporting reduces accountability because the payers bearing the burden of the tax may not be the same as those payers enjoying the benefits. In addition, accountability is not well served if residents have the greatest influence over the type and level of services provided but do not pay a proportionate cost of the service.

Our Conclusion: A reduction in the share of property taxes paid by business and an increase in the share paid by residential taxpayers would improve the accountability of the tax system in Vancouver.

7.5 Recommendations

Based on the conclusions reached with respect to fairness, competitiveness and accountability, the Commission feels that some further reduction in the non-residential share of taxes is warranted.

We have not been able to identify a simple indicator of an appropriate tax share. Instead, the choice of tax share is a judgment call – one that needs to weigh the strength of concern with the current tax share against the likely consequences of change. In arriving at our recommendation on tax share, we are mindful of the following factors:

- In the current commercial real estate market, a tax reduction is unlikely to translate into a permanent reduction in occupancy cost for business renters. When leases are renegotiated, a large part of the tax reductions will translate into an increase in the base rent.
- The strong emphasis on residential construction in the City is unlikely to be influenced by a change in the share of taxation.
- The City has already approved a significant reduction in the tax share based on our interim report.

- An across the board reduction in tax share should not be used to address the area-specific problems brought on by the volatility issue (see our recommendations on this issue in Section 10).

Therefore, we are recommending a further but moderate reduction in the tax share.

Recommendation #1:

The tax share paid by non-residential property (Classes 5 and 6) should be reduced from its current level to 48 percent.

We recognize that the actual share will be influenced by the impact of new construction in the different tax classes and Recommendation #1 is net of the effect of new construction on tax share.

We do not recommend that the City move immediately to the 48% goal. As noted in our interim report, we would not want to see the implementation of this objective compromised by a backlash from residential taxpayers. Therefore, we recommend a phased implementation.

Recommendation #2:

The City should reduce the tax share borne by business by one percentage point per year in each of the next years until the 48 percent share is achieved.

Prior to our appointment in 2006, the non-residential tax share was 55%. If the City accepts and implements the proposed goal of 48%, the business community will benefit from a 7% reduction in tax share over six years.

As noted above, our review has not been able to find a single indicator of the appropriate tax share and we cannot say that the 48% goal will not warrant reconsideration at some time in the future. Nevertheless, we believe a period of policy stability is desirable.

Recommendation #3:

Following implementation of the 48% goal, the City should keep the tax share unchanged for a period of 5 years unless the differential between the business taxes in Vancouver and business taxes in neighbouring municipalities widens considerably and/or the balance of business investment shifts substantially away from Vancouver to neighbouring jurisdictions.

7.6 Further considerations

Taxes and Land Use Planning

During the hearings, the Commission heard about the budgetary impact of planning decisions in the City of Vancouver. Although we understand that planning decisions do have an impact on municipal tax revenues and that planners need to be concerned about the tax implications of their decisions, we feel that this is a planning issue and is beyond the mandate of the Commission. We also understand that tax policies can affect land use planning decisions. We believe, however, the property tax is not an effective planning tool and should not be used for that purpose.

Tax shares and tax rate ratios

The current policy of the City of Vancouver is to use a "fixed share" approach to determine the property tax distribution between the residential and commercial property classes. Under this policy, the allocation of the levy among property classes is unaffected by differential changes in the market value of those properties.[14] What can and does change is the tax rate ratio – the relationship between the business and residential tax rates. This is not the result of a policy decision but a change that flows from the pattern of assessment changes based on market values.

The tax rate ratio on non-residential versus residential properties has increased substantially in Vancouver in recent years and is now around 6:1. But this increase masks a shift in taxes away from business properties.

We have not used the increase in tax rate ratio as an indicator of a tax problem; it is simply a consequence of the fixed share policy. We encourage participants in the public debate on the tax share issue not to confuse the debate over an appropriate tax share by referring to consequential changes in the tax rate ratio.

The distribution of taxes among property owners

Our analysis and discussion of the tax share issue has focused on the aggregate share of taxes paid by all non-residential properties. We have not commented on the distribution of taxes among property owners within a class. We will, however, comment on the distribution question in Section 10 as part of our conclusions and recommendations on the volatility issue.

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[14] Market value determines the distribution of the tax burden within classes of property.

8.0 VOLATILITY

8.1 Introduction

In this section we ask whether the evidence supports the view that "hot spots" are a major issue in the City of Vancouver. To address this broad question we focus on the following questions.

1. What is the context in which the hot spot issue arises?
2. What is a "hot spot"?
3. Does the evidence support the view that there is a significant incidence of "hot areas"?
4. If hot areas exist, does the evidence indicate they tend to persist?
5. Does the evidence support the view that there is significant incidence of "hot properties"?
6. If hot properties exist, is there any evidence these tend to persist?
7. Are there particular property characteristics associated with hot properties?
8. Do hot properties impact landlords and tenants in significantly different ways?

8.2 What is the context in which the hot spot issue arises?

Property taxes have been increasing steadily, reflecting inflation, growing population, and an increase in services but year-over-year changes in taxes collected by the City have not exhibited sudden and significant fluctuations. Although changes in the rate of new construction and class transfers add to the year-over-year changes experienced by any particular property class, the total taxes (excluding new construction) paid by any given property class have tended to be stable.[15]

To the extent that an *individual property* faces a significant year-over-year change in property taxes, the major contributing factor is the change in the total net assessed value of the property relative to the change for the class as a whole. If all taxpayers within a given class face the same annual percentage increase in taxable assessed value, then all individual taxpayers within the class would experience the same annual increase in their taxes paid. This increase would be determined by the overall change in total taxes collected by the City (coupled with any policy to shift taxes between classes). Not all properties within a given class experience the same annual changes, however, and it is these differences that give rise to the hot spot issue.

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[15] The exception is when the Council decides to shift taxes from one property class (such as the business class) to another class (such as the residential class). Even in the years when Council has shifted taxes from one class to another, the annual shifts have not caused extreme year-over-year changes in the total taxes for the classes.

Most of the increase in taxable assessed value has come from the land portion of total assessment. Figure 4 (Class 1) and Figure 5 (Class 6) provide an overview of the year-over-year percentage changes for net assessed value of land and net assessed value of improvements[16]. The percentage changes for improvements are inclusive of new construction of the properties in the sample. The annual percentage changes in Figure 4 and Figure 5 include only properties that are in the sample for both the current year and the immediate past year.

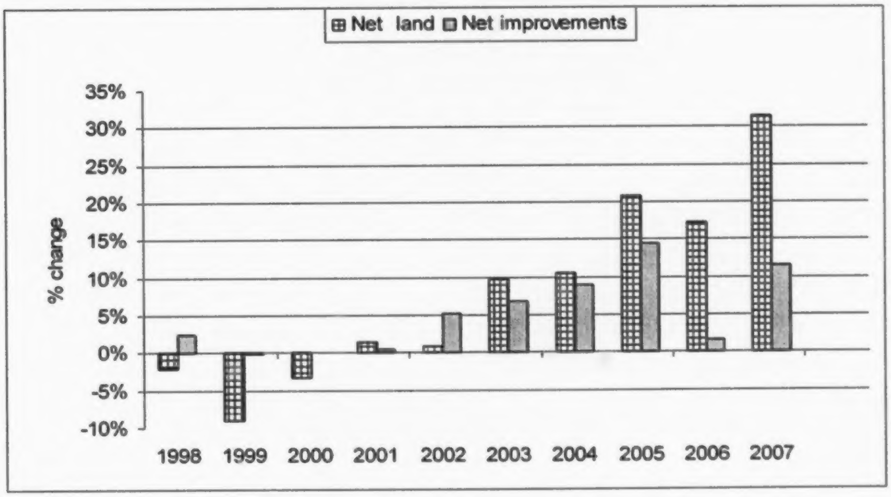

Figure 4: Class 1 Year-over-Year Percentage Changes, 1997-2007
Net assessed land value and improvement value

Figure 4 shows that the year-over-year percentage changes for net land are significantly larger, on average, than are the changes for net improvements.[17] It can also be noted that the net assessed value of land has increased significantly since 2002.

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[16] The data on which these charts are based are included in Appendix D.

[17] The changes for net improvements in Figure 4 and Figure 5 include all new construction occurring on properties that were in the sample for the current and previous year. If new construction on existing properties is excluded, the year-over-year changes in net improvements falls significantly.

Figure 5 presents a similar picture for Class 6 properties.

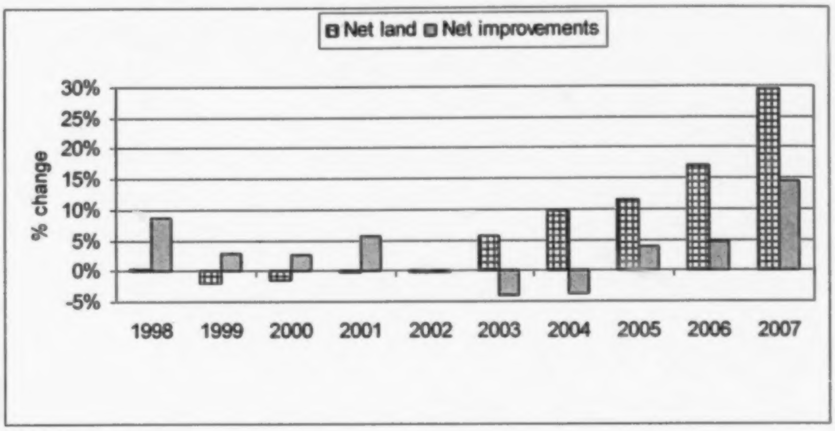

Figure 5: Class 6 Year-over-Year Percentage Changes, 1997-2007
Net assessed land value and improvement value

In the years since 2002, both Class 1 and Class 6 properties have experienced rapid increases in the net land assessment. Such increases for the entire class would typically be offset by corresponding reductions in the tax rate.

Summary of Findings

The evidence indicates that there have been year-over-year increases in the total property taxes collected by the City. The annual changes are not extreme, however. Year-over-year changes in total assessed values are driven mainly by changes in land value.

In the absence of an increase in the total taxes for a class and absent new construction or class transfers, changes in total assessed value within a class are offset by changes in the tax rate. The hot spot issue does not arise because of year-over year changes in total taxes for the class or because of increases in total assessed value for the class. Rather, hot spots arise because some properties within a class experience year-over-year changes that are larger than the increase for the class as a whole.

8.3 What is a "hot spot"?

We define a hot spot as "a property or cluster of properties that experiences an unanticipated year-over-year increase that is significantly greater than the average increase for the class". This definition implies that a "hot spot" is determined annually. The notion of *unanticipated* is used to exclude year-over-year increases that may well have been anticipated because of some action on the part of the property owner such as new construction or a significant change in zoning.[18]

To analyze the extent to which hot spots are a major issue, we used a data base of all Class 1, Class 5, and Class 6 properties in the City of Vancouver for the years from 1997 through 2006. Each class is analyzed separately (the results for Class 5 are reported Appendix E.).

The first step was to calculate the percentage changes in the net land, net improvements, and total net assessed value for each class of property and for every property in each class.[19]

We next calculated the "*relative* year-over-year percentage changes" for each property in the sample. The relative change is defined as the annual percentage change in the total net assessed value for each individual property relative to the annual percentage change in the total assessed value for the class[20].

The calculation is as follows:

$$\left[\frac{(1+\%\,change\ for\ an\ individual\ property)}{(1+\%\,change\ for\ the\ entire\ class)}-1\right]*100\ =\%\ relative\ change$$

Consider three properties with different increases in assessed value, as shown in Table 22:

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[18] One would expect that new construction would result in an increase in total taxable value, hence this is not "unanticipated". A property may experience new construction one year, and thus not be characterized as a hot spot that year. In a subsequent year, however, the same property may experience a large unanticipated year-over-year increase that significantly exceeds the class average. In that case, it would be a possible hot property.

The impact of a rezoning is perhaps less clear. If the property owner sought the rezoning, then it is reasonable that an increase in taxes might occur and as a consequence we believe that the property would not qualify as a hot property in that particular year. Even if the change in zoning was not a result of the property owner's initiative, such changes are generally subject to community input well before the rezoning occurs. In that case, the property owner should have reasonably anticipated a change in value.

[19] To calculate annual percentage changes, the data were limited to those properties that were included in each class for consecutive years (i.e., the roll number and lagged roll number had to be identical). By limiting the analysis to properties in the current and immediately past year, all properties that change class and all new properties are excluded. Ideally, we would eliminate properties that have changed zoning, but we had no evidence to make this adjustment.

[20] Relative percentage changes were also calculated for net land as this was required to evaluate alternative interventions in the market.

	Property A	Property B	Property C
% change in total assessed value for class	12%	12%	12%
% change in total assessed value for property	6%	12%	25%
% relative change	-5.36%	0%	11.61%
	$\left[\frac{(1.06)}{(1.12)}-1\right]*100$	$\left[\frac{(1.12)}{(1.12)}-1\right]*100$	$\left[\frac{(1.25)}{(1.12)}-1\right]*100$

Table 22: Illustration of Relative Changes in Total Assessed Value

Property A has an annual change less than the class average; hence the relative change is negative. Property B has a change equal to the class average, hence a relative change of zero. Property C has an annual change greater than the class average, therefore a positive relative change.[21] These relative increases for each property can be used to estimate the relative change in taxes[22]. For example, if taxes increased by 4% for the entire class, Property B would experience a 4% increase in taxes (even though total assessed value increased by 12%). In contrast, Property A would experience a 1.57% *decrease* in taxes and Property C would have tax increase of 16.07%[23].

For our analysis, we adopted the benchmark of a relative change of 10% to identify hot properties. This benchmark means that any property with a relative change of 10% or more in any year would be considered a hot property. If the year-over-year increase for a particular class is 12%, for example, any property (excluding new construction) that has an annual increase in total assessed value of over 23.2% is defined to be a hot property. [24]

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[21] We adopted a measure to estimate and eliminate new construction that occurs on properties in the sample for both the current and past year. Ideally, one would identify every individual property undergoing new construction, but these data were not available to the Commission for the entire study period.

Our estimate of new construction is based on the criterion of a 20% year-over-year change in the value of gross improvements. All properties experiencing a change in gross improvements of less than 20% are treated as if there was no new construction on the property. Based on the 20% standard, we eliminate 9.1% of Class 1 and 10.6% of Class 6 properties from potentially being classified as hot properties. If a lower rate of annual change in the value of gross improvements is used to estimate new construction, say a 10%, more properties would be eliminated and fewer properties would qualify as hot properties. For example, using 10% change in gross improvements as a basis for identifying new construction, we would eliminate 14% of Class 1 and 17% on Class 6 properties from consideration.

We intentionally adopted a high percentage (20%) change in the value of gross improvements knowing this would bias towards finding more hot properties. In effect, we eliminated only "major new construction". The BC Assessment Authority can precisely identify new construction and eliminate it from the analysis.

[22] One further advantage of using the relative change is that it allows comparisons across years since the relative changes in every year are adjusted to reflect the aggregate annual changes for the class.

[23] The tax increase for Property B is determined as ((1.04)*(1.0)-1). The tax decrease for Property A is determined as ((1.04)*(1-0.0536)-1) and the tax increase for Property C is ((1.04)*(1.1161)-1).

We appreciate that the selection of a 10% benchmark is subjective. We explored a higher benchmark (25%) and found this resulted in very few hot properties. However, we believe a relative change of 25% is well beyond what any taxpayer might reasonably have anticipated. We also analyzed the impact of a 15% benchmark. In the final analysis, we concluded the 10% benchmark was a reasonable basis to analyze the hot spot issue.

8.4 Does the evidence support the view that there is a significant incidence of "hot areas"?

One of the issues raised during the hearings was that certain areas of the City have experienced significantly larger year-over-year increases in taxes than other areas. If this assertion is true, the major source of such significant changes must be to the result of either differences in the relative rate of new construction or differences in the relative year-over-year changes in the total net assessed value in those areas[25].

We analyzed the properties by neighbourhood to determine if there were any persistent hot neighbourhoods among the 30 neighbourhoods in the City of Vancouver[26].

The following is a map of those 30 neighbourhoods.

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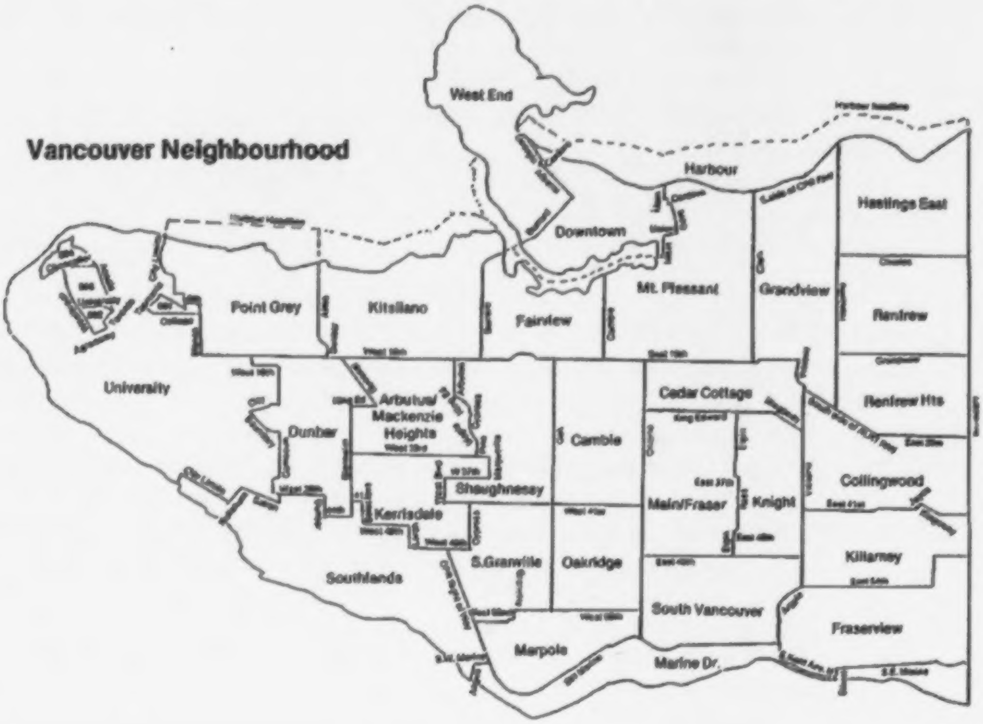
[24] The 23.2% is the product of (1.10), the benchmark, multiplied by (1.12) minus 1.

[25] The Commission was limited to analyzing differences across neighbourhoods as defined by the BC Assessment Authority. We recognize that there may be hot areas that do not correspond to the boundaries of these neighbourhoods, but these neighbourhoods are sufficient to address the issue of "hot areas."

[26] The number of neighbourhoods increased from 28 to 30 during the study period but we were able to allocate all properties to the 30 neighbourhoods for the entire period.



The year-over-year changes in the total net assessed value for each neighbourhood are presented in Appendix D.

Table 23 (Class 1 properties) and Table 24 (Class 6 properties) summarize the key neighbourhood findings. The results in Table 23 and Table 24 include all properties in each neighbourhood where no major new construction has occurred and thus include only market movements for the same properties each year. For ease of comparison, we report the relative percentage changes for the neighbourhoods (relative to the entire class).

Only the last five years (the period in which hot properties and hot neighbourhoods have become increasingly significant) and only the top and bottom five neighbourhoods are reported in the main report. All neighbourhoods and years can be found Appendix D.

Neighbourhood	2003	2004	2005	2006	2007
Top 5 Neighbourhoods					
HARBOUR	7.0%	11.4%	-2.3%	-1.0%	5.8%
CEDAR COTTAGE	-0.5%	-1.2%	5.9%	-1.7%	4.3%
POINT GREY	-1.8%	0.1%	-1.5%	2.4%	3.4%
GRANDVIEW	-3.7%	-1.1%	1.0%	1.1%	3.2%
DUNBAR	1.6%	-1.3%	0.7%	0.5%	2.7%
Bottom 5 Neighbourhoods					
FALSE CREEK NORTH	5.7%	3.7%	2.0%	2.0%	-1.4%
FRASERVIEW	2.1%	-1.5%	0.6%	-4.4%	-2.3%
WEST END	0.7%	1.0%	0.2%	-0.8%	-2.8%
FAIRVIEW	-0.4%	3.0%	1.8%	-0.7%	-2.9%
SHAUGHNESSEY	-5.5%	-0.2%	-2.8%	1.2%	-3.3%
Annual % change in Total Net Value	7.4%	7.9%	16.0%	11.0%	23.5%
Ranked by 2007 relative changes, new construction excluded					

Table 23: Class 1 Relative Percentage Changes in Total Net Value by Neighbourhood

The results in Table 23 are ranked by the relative neighbourhood changes in 2007. As expected, each of the neighbourhoods has experienced quite different relative rates of change. Table 23 also indicates that neighbourhoods may experience higher than average rates of relative change, but these do not appear to be sustained over time. The Harbour neighbourhood, for example, had the highest relative change in 2007 but, in the previous two years, the relative change was negative (implying annual changes below the class average). Similar results are reflected for all of the top and bottom properties.

Table 23 shows that, in 2007, the annual percentage change for Class 1 was 23.5% but only one neighbourhood (Harbour) experienced a relative change over 5%[27]. Taken over the entire study period of 1997-2007, there were only 14 occasions where a neighbourhood experienced a relative change of more than 5% and only 2 cases (Harbour in both cases) where the relative change for the neighbourhood was greater than 10%. Once again, it is important to remember that these relative changes reflect market movement and not major new construction.

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[27] The actual percentage change for Harbour neighbourhood was 30.7%.

Table 24 provides similar information for Class 6 properties. Three points are significant in comparing the results for Class 1 and Class 6 neighbourhoods:

- The range of relative changes for Class 6 properties is greater than for Class 1 properties.
- Over the entire study period, 22 Class 6 neighbourhoods experienced a relative increase of over 5% (compared to 14 for Class 1) and 7 experienced relative increases of over 10% (compared to 2 for Class 1).
- Although high year-over-year changes in one class may impact changes in another class, the effect is not strong. Cedar Cottage neighbourhood is in the top five neighbourhoods in both Class 1 and Class 6 for 2007. In contrast, Dunbar neighbourhood is a top five hot neighbourhood for Class 1 but a bottom five for Class 6 in 2007.

Neighbourhood	2003	2004	2005	2006	2007
Top 5 Neighbourhoods					
CEDAR COTTAGE	1.8%	1.9%	-3.8%	-0.3%	6.0%
DOWNTOWN SOUTH	9.4%	11.3%	6.3%	4.9%	6.0%
KITSILANO	1.9%	17.6%	-1.7%	-4.1%	4.6%
MARPOLE	-0.8%	3.1%	-4.6%	-5.7%	3.7%
FRASERVIEW	0.4%	-0.5%	-5.3%	-7.3%	3.0%
Bottom 5 Neighbourhoods					
OAKRIDGE	1.7%	33.4%	-1.1%	-4.1%	-4.6%
SOUTH GRANVILLE	-0.5%	-3.1%	-4.3%	-7.9%	-6.0%
RENFREW HEIGHTS	0.7%	-5.3%	-1.6%	-4.0%	-6.3%
RENFREW	-2.3%	-1.5%	4.7%	-5.3%	-6.8%
DUNBAR	-3.4%	16.1%	2.5%	-0.6%	-7.3%
Total	-0.5%	2.5%	7.0%	10.7%	20.8%
Ranked by 2007 relative changes, net constructed excluded					

Table 24: Class 6 Relative Percentage Changes in Total Net Value by Neighbourhood

Summary of Findings

It is clear that some neighbourhoods have experienced annual relative changes in total net assessed value that are higher than other neighbourhoods. However, the differences in general are not large once the impact of new construction is removed. Although the incidence of hot neighbourhoods is low, there are two cases for Class 1 properties and seven cases for Class 6 properties where a given neighbourhood experienced a relative change greater than 10%. It is clear that Class 6 properties in particular neighbourhoods have experienced significant relative increases.

8.5 If hot neighbourhoods exist, does the evidence indicate they tend to persist?

Table 25 (Class 1) and Table 26 (Class 6) show five-year average relative changes in net value to see if there are neighbourhoods where the compounded relative percentage changes over five years are significantly above the class average[28].

Neighbourhood	2003	2004	2005	2006	2007
Top 5 Neighbourhoods					
HARBOUR	5.12%	6.01%	5.03%	4.26%	4.06%
FALSE CREEK NORTH	2.29%	2.67%	3.01%	3.38%	2.37%
DOWNTOWN SOUTH	1.21%	0.94%	1.35%	1.67%	1.35%
CEDAR COTTAGE	-0.24%	-1.13%	0.20%	0.09%	1.30%
MT PLEASANT	-0.13%	-0.99%	-0.41%	0.40%	0.88%
Bottom 5 Neighbourhoods					
SOUTHLANDS	-0.98%	-0.56%	-1.33%	-0.70%	-1.07%
FRASERVIEW	-0.20%	-0.56%	-0.31%	-0.91%	-1.14%
OAKRIDGE	-2.46%	-1.48%	-2.08%	-2.14%	-1.80%
SHAUGHNESSEY	-2.27%	-1.24%	-1.21%	-1.55%	-2.15%
SOUTH GRANVILLE	-3.69%	-2.17%	-1.90%	-2.54%	-2.34%
Ranked by 2007 relatives changes, new construction excluded					

Table 25: Class 1: Five Year Average Annual Relative Changes in Total Assessed Value, by Neighbourhood

The evidence in Table 25 supports the view that some neighbourhoods have experienced higher long term effects than for Class 1 as a whole[29]. However, the extent of the differences over any five-year period is not great. Over the five years since 2003, there are only four instances where the five-year compound rate of relative increases exceeded 5 % and these all occurred in one neighbourhood (Harbour).

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[28] For example, the results reported in the table for 2003 are for the five years period 1999 to 2003 while the results shown for 2004 are for the period 2000 to 2004.

[29] Similarly some neighbourhoods have experienced lower long term effects.

The results on five-year relative averages for Class 6 (Table 26) are similar to the findings for Class 1 properties. A few neighbourhoods have experienced higher than average five-year relative changes in total net assessed value. As was the case for Class I, the frequency of five-year average increases above 5% is small: only four cases are identified over the period 2003 to 2007. The four cases are concentrated in two neighbourhoods (Downtown South had three instances and False Creek North had one instance).[30]

Neighbourhood	2003	2004	2005	2006	2007
Top 5 Neighbourhoods					
DOWNTOWN SOUTH	2.7%	4.6%	6.1%	6.3%	7.3%
FALSE CREEK NORTH	-5.0%	-4.0%	-0.6%	6.1%	3.4%
MT PLEASANT	0.1%	-0.5%	1.3%	2.8%	3.0%
KITSILANO	0.1%	3.4%	3.1%	2.1%	2.8%
CEDAR COTTAGE	-2.8%	-2.2%	-2.3%	-0.1%	1.2%
Bottom 5 Neighbourhoods					
DOWNTOWN	-0.3%	-1.2%	-2.1%	-2.0%	-2.3%
RENFREW HEIGHTS	-1.7%	-2.5%	-2.7%	-1.8%	-2.5%
KNIGHT	-1.4%	-2.7%	-4.2%	-3.8%	-2.9%
SOUTHLANDS	-3.4%	-4.9%	-2.4%	-3.8%	-3.5%
FRASERVIEW	-2.1%	-2.3%	-3.5%	-4.5%	-3.9%
Ranked by 2007 relatives changes, new construction excluded					

Table 26: Class 6: Five Year Average Annual Relative Changes by Neighbourhood

Summary of Findings

We find evidence to support the view that some areas (neighbourhoods) have experienced persistent longer term (five-year average) relative increases that are above the average for the class but these relative increases are seldom above 5% per year. The incidence of high five-year average relative annual changes is concentrated in three neighbourhoods. Readers familiar with Vancouver will recognize these three neighbourhoods as areas of significant change over the past decade.

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[30] The Commission was also concerned about a neighbourhood that experiences a large relative increase (a hot neighbourhood) and thereafter experiences annual relative changes at or slightly above the average change for the class. As a consequence, the relative assessed value in this neighbourhood remains at the new (higher) level. The evidence in Tables 5 and 6 indicates that this situation does occur, particularly in the three neighbourhoods experiencing higher five- year average relative increases. This result simply suggests that a neighbourhood has become relatively more popular and continues to enjoy the popularity.

8.6 Does the evidence support the view that there is a significant incidence of "hot properties"?

One of the major points raised in the hearings was that some properties, particularly in Class 6, face year-over-year increases in taxes that are significantly higher than the average increase for the class.

Figure 6 presents a high level overview of the incidence of hot properties for Classes 1 and 6. Details are included in Appendix D. Based on our criteria for a hot property, we identified 51,308 Class 1 and 9,688 Class 6 properties as "hot properties" over the entire 11-year period of the study.

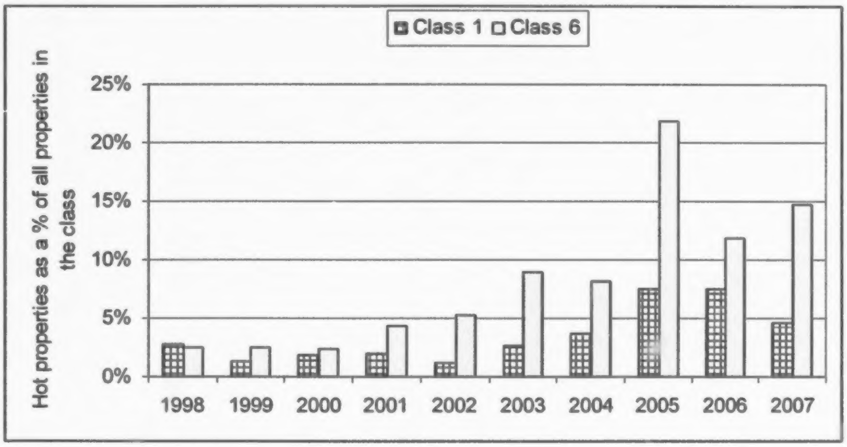

Figure 6: Hot Properties as a Percentage of All Properties

Hot properties in Class 1 represent 3.6%% of the total properties in Class 1 over the period 1998-2007. Hot properties in Class 6 represent 8.6% of all properties in Class 6 over the same period. However, in more recent years, 2003 to 2007, hot properties in Class 1 represent 5.2% of all Class 1 properties and hot properties in Class 6 represented 13.1% of all Class 6 properties.

As Figure 6 shows, the incidence of hot properties has increased significantly for both Class 1 and Class 6 properties since 2000[31]. This sharp increase in the number of hot properties in recent years corresponds to the very active real estate market in the City of Vancouver.

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[31] The pattern remains the same when expressed in dollars rather than properties.

Distribution of hot properties by neighbourhood

Table 27 and Table 28 provide a summary of the percentage of all properties within each neighbourhood that are hot properties[32]. More details can be found in Appendix D.

Neighbourhood	2003	2004	2005	2006	2007
Top 5 Neighbourhoods					
HARBOUR	0.8%	63.8%	-1.4%	2.2%	18.1%
MT PLEASANT	-1.2%	1.8%	12.8%	20.0%	12.9%
GRANDVIEW	-0.8%	-0.5%	0.7%	15.2%	9.9%
CEDAR COTTAGE	-2.4%	0.3%	2.4%	-6.2%	6.7%
POINT GREY	-0.7%	6.4%	-4.2%	0.3%	5.5%
Bottom 5 Neighbourhoods					
MAIN/FRASER	-1.4%	-2.5%	1.9%	-5.9%	-3.9%
DUNBAR	0.0%	-3.5%	-6.3%	-5.9%	-4.0%
OAKRIDGE	0.2%	-3.5%	-7.0%	0.8%	-4.3%
RENFREW HEIGHTS	-2.5%	-3.5%	-5.5%	-6.9%	-4.4%
KILLARNEY	-2.4%	-3.5%	-4.9%	-6.9%	-4.4%
Total	2.6%	3.7%	7.5%	7.5%	4.6%
Percentage of Properties in the Neighbourhood that are Hot Properties					

Table 27: Class 1 Incidence of Hot Properties

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[32] The neighbourhoods are ranked according to the 2007 changes.

Neighbourhood	2003	2004	2005	2006	2007
Top 5 Neighbourhoods					
FAIRVIEW	-3.3%	5.3%	8.6%	-5.3%	8.6%
DOWNTOWN SOUTH	6.1%	9.5%	16.3%	14.0%	6.0%
DOWNTOWN	-5.0%	-5.7%	8.3%	-2.3%	4.2%
MT PLEASANT	-1.5%	-5.0%	-11.0%	4.7%	2.0%
CEDAR COTTAGE	-1.5%	-4.6%	-7.9%	-1.5%	1.7%
Bottom 5 Neighbourhoods					
FALSE CREEK NORTH	23.2%	8.5%	0.6%	22.4%	-11.1%
KERRISDALE	3.5%	2.9%	-4.2%	-4.1%	-11.1%
ARBUTUS	-8.2%	3.4%	-17.9%	34.1%	-12.9%
SOUTH GRANVILLE	-8.2%	1.7%	-8.8%	-10.6%	-12.9%
OAKRIDGE	-8.2%	23.3%	-17.9%	-10.6%	-12.9%
Total	9.0%	8.1%	21.8%	11.8%	14.8%
Percentage of Properties in the Neighbourhood that are Hot Properties					

Table 28: Class 6 Incidence of Hot Properties

These tables show a clustering of hot properties within a few neighbourhoods. Indeed, some neighbourhoods have virtually no hot properties while other neighbourhoods have a high percentage of properties.

Comparing the results in Table 23 and Table 27 for Class 1, one finds that four of the top five neighbourhoods are in both tables. The bottom five neighbourhoods do not demonstrate this same strong relationship. In Class 6, a comparison of Table 24 and Table 28 demonstrates that neighbourhoods experiencing high relative rates of change also have a high percentages of hot properties.

On average, across all neighbourhoods and all years, the hot neighbourhoods are more likely to have a higher percentage of hot properties.

Within Class Distribution of Relative Percentage Increase

Figure 7 classifies all hot properties in Class 1 and Class 6 according to the relative percentage increase in any year. The lowest category of relative change begins at 10% since this is the minimum relative increase to be considered a hot property.

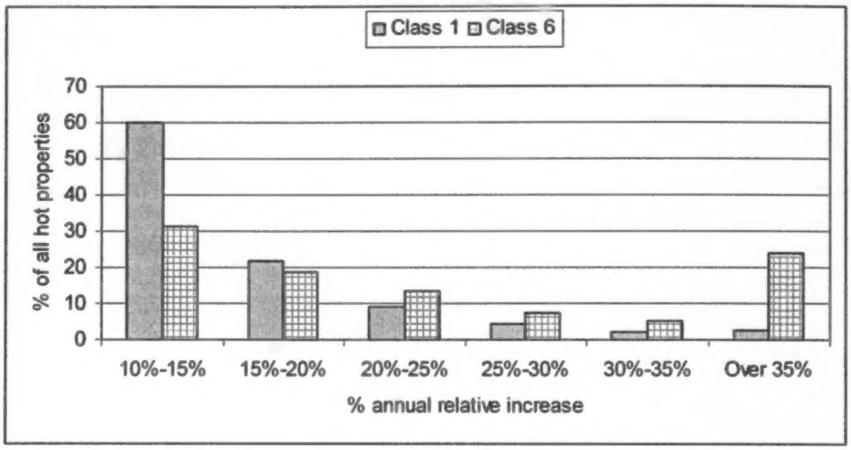

Figure 7: Categories of Relative Percentage Changes for Classes 1 and 6 Properties (all years combined)

While Figure 6 indicates that the number of hot properties is significant, Figure 4 indicates that the relative increases experienced by these hot properties are large[33]. While 10% is the minimum relative increase to be considered a hot property, many of the hot properties have single year relative changes that are significantly beyond the 10% benchmark. Furthermore, the relative changes for hot Class 6 properties are generally much larger than for Class 1 properties.

Summary of Findings

The evidence supports the claim that hot properties exist and that the incidence of hot properties has increased in recent years. It is clear that a significant number of properties experience relative changes in excess of the 10% benchmark used to identify hot properties.

The incidence of hot properties is much more common in Class 6 than in Class 1. Moreover, the relative increases experienced by the hot properties in Class 6 are significantly greater than those faced by Class 1 hot properties.

8.7 If hot properties exist, is there any evidence they tend to persist?

Some presenters at the hearings suggested that individual properties experienced significant year-over-year changes in taxes for several years. We examined the frequency of repeat hot property status for individual properties.

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[33] Since relative percentage changes incorporate the annual changes for the class, it is possible to then compare relative changes across years and across classes.

To address this question we analyzed all hot properties in 2007 and determined the number of times they had been hot properties in the past. The results are shown in Figure 8. It shows that of the hot properties in 2007, approximately 68% of the Class 6 hot properties in 2007 and 81% of the Class 1 hot properties were hot properties only in 2007. Less than 2% of Class 1 hot properties and 9% of Class 6 hot properties were hot properties more than three times during the study period.

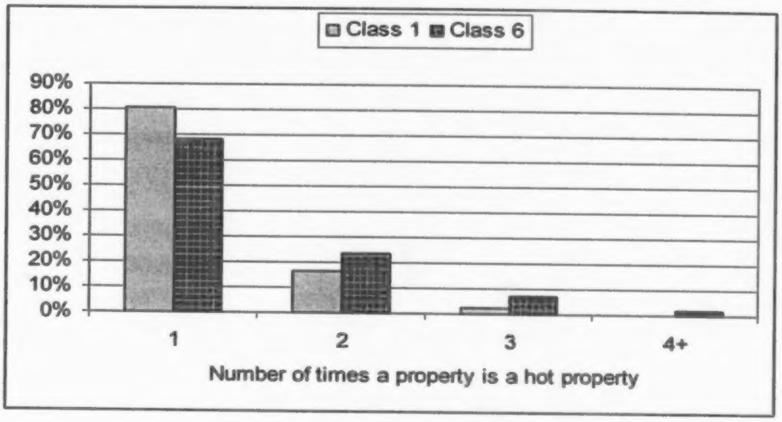

Figure 8: Number of Times a Property is a Hot Property
Includes only those properties in the sample in 2007 that were hot properties

Summary of Findings

The evidence shows that a significant number of properties do repeat as hot properties and Class 6 properties are much more likely than are Class 1 properties to repeat as hot properties in two or more years.

8.8 Are there particular property characteristics associated with hot properties?

We identified four property characteristics that are linked to the incidence of hot properties: land-to-total value ratio; whether the property was strata or non-strata; effective age of the property; and the total gross value of the property.

Land-to-total net value ratio

The point was made during the hearing that many hot properties were properties with significant redevelopment potential. We looked at the land-to-total value ratio and the effective age of the improvements to investigate this point.

Table 29 shows that properties with high land-to-total net value ratios are much more likely to be hot properties. For example, in 2007, vacant Class 1 properties were four times more likely than properties with improvements in place to be hot properties. The results are similar for Class 6 properties, but not as dramatic.

Category	2003	2004	2005	2006	2007
Class 1					
< 0.35	2.6%	2.1%	4.5%	19.5%	0.2%
0.35 to 0.50	4.3%	5.1%	9.1%	6.2%	5.4%
0.5 to 0.65	2.5%	5.9%	10.8%	8.4%	3.6%
0.65 to 0.80	2.1%	3.8%	7.5%	7.1%	5.5%
0.80 to 0.99	2.1%	1.8%	4.9%	6.9%	4.3%
1.0	12.6%	8.5%	12.3%	22.3%	16.6%
Total	**2.6%**	**3.7%**	**7.5%**	**7.5%**	**4.6%**
Class 6					
< 0.35	2.8%	0.4%	1.3%	2.1%	0.0%
0.35 to 0.50	6.8%	5.4%	22.6%	9.9%	20.6%
0.5 to 0.65	6.2%	4.5%	33.7%	10.2%	8.9%
0.65 to 0.80	10.8%	7.2%	21.8%	10.0%	8.3%
0.80 to 0.99	8.2%	13.0%	21.8%	15.2%	15.3%
1.0	18.6%	17.7%	22.4%	20.6%	33.5%
Total	**9.0%**	**8.1%**	**21.8%**	**11.8%**	**14.8%**

Table 29: Land-to-total Net Value Ratio
(Hot properties as a Percentage of All Properties)

The finding that vacant properties are much more likely to be hot properties is not surprising because it is the land component that experiences the highest rate of annual change. However, less than 1% of the Class 1 hot properties were vacant properties so this factor does not explain many of the hot properties in that class. In sharp contrast, 19.1% of the Class 6 hot properties were vacant properties.

Age of the property

The age of the property matters because older properties are less likely to represent highest and best use of the site and are likely to have a higher land-to-total value ratio. Since a change in the value of land is more volatile than the change in the value of improvements, the older, high land-to-total value properties are more likely to be hot properties.

	Strata properties	Non-strata properties
Class 1		
Hot	22	46
Not hot	23	39
Class 6		
Hot	12	48
Not hot	13	39

Table 30: Age of Properties in 2006 and the Incidence of Hot Properties (2006 only)[34]

Table 30 summarizes the average effective age (years since the property was developed or redeveloped) of the hot properties for both strata and non-strata properties for the year 2006. For both classes, the effective age of strata properties is essentially the same for hot properties and for properties that are not hot. However for non-strata properties, and for both classes, we find s significant difference in the average age of hot properties and properties that are not hot.

The effective age of the improvements appears to be a factor in determining hot properties, at least for non-strata properties. However, the linkage between age and the likelihood of a property being a hot property is likely indirect: older properties are more likely to have a high land-to-total net value ratio, a characteristic more closely associated with hot properties.

Strata and non-strata properties

Table 31 provides a summary of hot properties classified by primary land use, in particular strata and non-strata properties. Strata properties constitute approximately 60% of all Class 1 properties since 2003, but over 80% of all Class 1 hot properties. Strata properties in Class 1 have a significantly higher incidence of hot properties than do non- strata properties.

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[34] The age of the property is taken from the "effective age" of properties provided by the BC Assessment Authority. The effective age information was only available for 2006 and 2007.

	2003	2004	2005	2006	2007
Class 1 Strata					
As a % of all properties	55.9%	57.0%	59.2%	60.5%	62.1%
As a % of all hot properties	79.1%	91.7%	88.8%	81.5%	80.1%
Class 6 Strata					
As a % of all properties	47.1%	48.4%	48.7%	48.0%	48.5%
As a % of all hot properties	55.5%	42.0%	77.7%	67.7%	45.6%

Table 31: Strata Properties and the Incidence of Hot Properties

Strata properties are less common in Class 6 where 61.5% of the Class 6 hot properties over the entire study period are strata properties and the incidence of hot properties does not appear to differ from the class average.[35]

Property value

Hot properties as a percentage of all properties in the class were classified according to the total net value of the properties. Table 32 shows that lower-valued properties generally have a somewhat greater likelihood of being a hot property.

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[35] The high incidence of hot strata properties appears to be most common in the first two years following the registration of the strata project. There is some suggestion that these high levels of year-over-year changes may reflect the restructuring of pre-sold prices between the time the project is registered and the date of completion.

Total gross value	2003	2004	2005	2006	2007
Class 1					
Less than $150,000	3.8%	5.1%	14.4%	36.2%	14.3%
$150,000 to $500,000	2.5%	3.4%	9.7%	6.5%	7.1%
$500,001 to $1,000,000	2.4%	4.0%	2.1%	5.5%	2.0%
$1,000,001 to $2,000,000	0.6%	2.4%	2.0%	7.8%	3.9%
Over $2,000,000	2.3%	2.6%	3.1%	8.4%	9.5%
Hotspot as a % of total	2.6%	3.7%	7.5%	7.5%	4.6%
Class 6					
Less than $150,000	7.1%	5.3%	30.6%	9.6%	20.1%
$150,000 to $500,000	11.1%	7.3%	22.0%	14.7%	11.2%
$500,001 to $1,000,000	9.4%	10.6%	13.2%	11.4%	11.8%
$1,000,001 to $2,000,000	8.3%	11.2%	13.2%	10.4%	15.9%
Over $2,000,000	8.7%	14.7%	14.4%	11.9%	15.0%
Hotspot as a % of total	9.0%	8.1%	21.8%	11.8%	14.8%

Table 32: Hot Properties Market Share (By Category of Total Gross Value)

Since 2003, the typical Class 1 and Class 6 hot property has tended to have a lower value than the classes as a whole. The evidence also indicates, however, that lower-valued properties are associated with low improvement values (i.e., potentially under-developed properties). In Class 1, the evidence is stronger than for Class 6, but overall the evidence suggests that less valuable properties are more likely to be hot properties and the less valuable properties are more likely to be vacant sites or sites with very low levels of improvement.

8.9 Do hot properties impact landlords and tenants in significantly different ways?

A final major issue that was raised during the hearings concerns tenants occupying properties that face large property tax increases, particularly small business tenants operating under net leases[36].

In the case of an owner-occupier, the owner pays the property taxes and ultimately benefits from the corresponding change in value. The taxes may cause the owner to relocate as the property value becomes too expensive for their particular business, but the owner will nevertheless benefit from the higher values.

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[36] The issue of the small business was also addressed in Section 5

A tenant, on the other hand, pays rent that includes the property taxes but cannot directly take advantage of the corresponding higher value. The position of the tenant is further complicated by the type of lease. Some tenants sign a "gross lease", a lease in which the tenant makes a single periodic rent payment inclusive of all property costs and the landlord assumes the risk of unanticipated changes in property costs[37]. In such cases, an unanticipated large increase in property taxes would fall to the landlord, at least until lease renewal time (similarly an unanticipated decline in taxes would benefit the landlord operating under a gross lease). At the time of the renewal of the lease, the landlord (and tenant) would be aware of the past increases in property taxes and this information would influence the new gross rent to be negotiated. If the renewal rent offered is too high, the tenant may be forced to move elsewhere.

In other cases, apparently the more common occurrence, the tenant may be operating with a net lease, a lease arrangement in which the tenant assumes direct responsibility for net rent plus all operating costs, including property taxes. If there were a large unanticipated increase in property taxes, the tenant would bear this cost directly, at least until the lease is renewed. The longer the term to renewal, the longer the tenant faces this unanticipated increase in taxes. Upon lease renewal, both the landlord and tenant would be aware of the higher property taxes and this information would influence the net rent established at that the time of renewal. Once again, a tenant may decide the renewal net rent is too high and move elsewhere.

The position of the tenant is also affected by whether the current use of the property is its highest and best use. If it is not, the tenants will be paying property taxes on existing improvements and the equivalent of property taxes on land value in current use plus the equivalent of property taxes on the "option" to change to highest and best use. If, on the other hand, the current use of the property is the highest and best use, the tenant pays taxes on improvements plus taxes on land at its current use (which is the highest and best use). In this case, the land value is pro-rated over a larger improvement value and potentially more tenants. Once again, a net lease means the tenant bears direct responsibility for both anticipated and unanticipated increases in property taxes, and the rate of increase in taxes will be higher for properties with a large land component, and even more so if the property begins to face pending redevelopment to a higher and better use.

To the extent that the increases in taxes were reasonably anticipated, the tenant would have built this into the negotiations for the net rent. It is the unanticipated increase that creates the problem for the tenant with a net lease (and for the landlord with a gross lease). And in areas undergoing major redevelopment, this unanticipated portion is expected to be higher.

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[37] Presumably all anticipated changes are incorporated into negotiated leases.

Although we have no solid evidence indicating what type of property a small business may occupy, it does seem reasonable to speculate that the older, less developed properties would attract smaller and potentially more marginal businesses. If this is the case, then the tenants of these properties would be occupying spaces that have redevelopment potential. The evidence shows that such properties are much more likely to be hot properties. As the redevelopment becomes more immediate, the land values play a more major role in determining the taxes. The potential problem facing such a small business is exacerbated by a net lease with a number of years remaining before the base rent can be renegotiated.[38]

8.10 Overall Conclusions Concerning the Hot Spot Issue

The evidence suggests there is a hot spot problem in the City of Vancouver and it has become more significant in the past six years. The evidence also indicates that hot properties are a significantly more serious issue for Class 6 properties.

There is a positive relationship between neighbourhoods experiencing an above average relative increase in total assessed values and the percentage of properties in the neighbourhood that are found to be hot properties. Hot properties also repeat over the study period and repeat more often for Class 6 properties than for Class 1 properties.

Properties with redevelopment potential (high land-to-total net value ratio and older properties) are more likely to be hot properties. Vacant sites are significantly over-represented in the hot property category. We find some relationship between the value of the property and the likelihood of being a hot property, but the relationship is weak. Strata properties are much more likely to be hot properties in Class 1 but this is not true for Class 6 strata properties.

Although we are not able to link owner-tenant status to individual properties, the characterization of properties that are more likely to be hot properties provides some insights into the problem facing tenants, particularly tenants in older properties facing possible redevelopment. Since we have no way of linking the type of lease with individual properties, however, we are unable to offer any specific empirical evidence concerning the plight of tenants on net leases.

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[38] Lease problems of this nature are mainly a problem for non-residential properties. A high percentage of residential properties are owner-occupied and even if tenant –occupied, the residential leases tend to be both short term (generally one year or less) and gross leases. Under these circumstances, unanticipated changes can be addressed in lease renewals in a timely manner. On the other hand, most commercial leases are for more than one year and more typically net leases; hence it takes longer until the tenant can renegotiate the lease and rents.

9.0 VOLATILITY – POLICY OPTIONS

9.1 Introduction

This section reviews a number of policy options that are currently used in other jurisdictions or have been suggested as a way to address volatility in Vancouver. We are aware that most, if not all, of the options presented here are currently outside the legislative authority of the City. Therefore, implementation would require the support of the Province as well as City Council.

The options considered in this section are:

- Averaging, both three-year and five-year averaging
- Capping
- Phase-In
- Rebate of taxes to commercial tenants
- Unoccupied Density Allocation
- Less frequent assessments, assessment freezes, and time-of-sale reassessment

The first three options -- averaging, capping, and phase-in – share some common features:

- They are all designed to offer temporary relief by moderating year-over-year changes in value. None of these options is designed to offer a permanent reduction in taxes.
- All could be applied to the changes in land value, improvement value, total value, or taxes. For example, the City of Vancouver currently applies three-year averaging to the assessed value of land; Ontario, on the other hand, caps increases in taxes.
- They could be applied to all properties in a class or restricted to properties experiencing unacceptably high increases in value. In addition, these policies could be (and often are) coupled with specific exemptions. For example, vacant properties or properties that change class might be exempt from tax relief.
- To varying degrees, all three options weaken the link between current assessment and taxation. They attempt to increase predictability and provide greater stability for property owners and this is achieved at the expense of equity: properties of equal value do not pay equal taxes. As we noted earlier, there is a tradeoff between competing objectives in a very complex system.
- To some extent, all three policies could reduce the incentive to maintain the quality of current assessments. Although the reduced incentive may be the outcome for some extreme form of the policies (such as capping taxes or "time of sale" reassessment), more carefully designed forms of these options will ultimately rely upon good annual assessments.

To adopt any of these three options (or, indeed, any of the options discussed in this section), it is necessary to consider who pays for the tax relief. Under a system where the share of taxes is fixed for each class (as is the current case in Vancouver), it follows logically that other properties in the same class would pay for any temporary benefits arising from the options. Under tax systems where the share of taxes for each class is not fixed, it would be possible to consider sharing the costs among all property classes.

Although these options share much in common, there are some significant differences. We first explore these differences and then evaluate each option on the basis of a number of considerations.

In our analysis of the averaging, capping, and phase-in options, we adopted three general limitations: we applied the options to the land component only; we excluded properties that were new to the class in the year they entered the class; and we excluded properties experiencing a change in gross improvements of 20% or more[39].

9.2 Land Averaging

Our analysis to this point did not take into consideration the three-year land averaging that has been used by the City for a number of years. The methodology is well known to Vancouver property owners and the mechanisms are in place to continue to use averaging. The broad consequences of land averaging are generally well understood:

- Averaging does not provide permanent reductions in taxes but rather it smoothes the changes in land values.
- Land averaging is not focused; it works in both directions: as land values increase, the averaging slows the rate of increase; as land values decrease, averaging slows the decreases.
- Land averaging works to compress the range of annual changes in land values. The compression in the range of annual changes occurs because properties with current values that are high relative to their past land values are averaged down while properties with current values that are low relative to their past values are averaged up.
- Land averaging applies to all properties, not just properties that experience large increases in land values.
- In a period of generally rising land values, land averaging reduces the total assessed value for a class of property from what it would be in the absence of averaging.

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[39] The second and third limitations are identical to those applied earlier in identifying hot properties. In applying three-year land averaging the City has a number of other exclusions such as vacant properties and land that was rezoned. We have ignored these refinements in our analysis in order to focus on the major issues.

Therefore, to raise the same tax revenue from a class of property, the tax rate applied to the averaged values will be higher than for the un-averaged values.

We analyzed both three-year and five-year land averaging. We included the five-year land averaging option since a five year period seems to approximate a property market cycle more closely than three years.

9.3 Capping

A number of jurisdictions have used tax capping to limit the annual rate of increase in taxes paid, either directly by capping changes in taxes or indirectly by capping changes in assessed values Unlike the averaging approach, capping is very focused and provides a clear limit on the rate of increase in taxes. In this sense, capping provides greater certainty and predictability, especially when there are rapidly increasing values.

Capping is currently used for multi-residential and non-residential properties in Ontario. Initially, taxes were capped at a 5% increase over the previous year's taxes, but now municipalities can cap at anywhere between 5% and 10% increase over last year's taxes or at 5% of the market value taxes (called current value in Ontario)[40]. The City of Vancouver also used a form of capping in the early 1990s to moderate tax increases associated with rapid assessment increases.

In general, capping has a poor reputation. In addition to the equity concern (properties with similar values pay different taxes), there is the concern about the time it would take to eliminate capping. This point is considered further below.

We believe that some capping options are better than others in the sense that they can reduce volatility while minimizing the negative consequences. We developed and tested a "restricted" capping mechanism where capping is applied only when the increase in total assessed value (exclusive of major new construction) exceeds the increase for the class as a whole by more than 10% before capping is applied[41]. The capped limit of assessment increase ensures that only hot properties benefit directly from the cap. The cap then applies only to the assessed land values and not to improvement values[42].

The Commission analyzed the restricted capping mechanism in which the capped land value for the current year would be the lesser of:

(1) Actual assessed land value for the current year

or

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[40] It is worth pointing out one key difference between Ontario and BC: Ontario is still moving to market value assessment for non-residential properties while B.C. has been there for many years.

[41] This corresponds to our definition of a hot property.

[42] Properties that do not qualify today for averaging would not benefit from the restricted capping. However, because of limitations on the data used for the mechanism in our analysis we apply capping to all properties in the sample for the current and the previous year.

(2) Prior year capped land*(1+ % annual change in land for the class) *(1+benchmark).

Consider the following simple illustration involving two properties.

	Property A	Property B
Current year net land assessment	$150	$125
Previous year capped net land	$100	$105
% change in net assessed value of land	50% [($150/$100)-1] * 100	19.05% [($135/$105)-1] *100
Benchmark rate (set by policy)	10%	10%
% change in assessed value of net land for the entire class	20%	20%
Capped land value	$132 =($100*(1.20)*(1.10)	$138.60 =($105*(1.20)*(1.10)
Actual capped net land used in the current year	$132 Lesser of $150 or $132	$125 Lesser of $138.60 or $125
Resulting annual increase in capped land	32% ($132/$100 -1)*100 Or ((1.10*(1.20)-1)*100	19.05% ($125/$105 -1)*100

Table 33: Illustration of the Impact of the Restricted Capping Mechanism

According to this mechanism, Property A would be capped and Property B would not be capped.

We recognize that one of the major issues with capping is that a property's assessed land value would move toward its full assessed value over time but that this could take a number of years. This timing issue also applies to averaging except that it is clear how many years it would take for averaged properties to reach full assessed value for the land component. Once markets stabilize, we expect the averaged land value to reach full assessed value in two years (for the three year mechanism) and four years (for the five year mechanism). It is less clear how long it would take a capped land value to reach its full assessed value in a similarly stable market[43]. We provide some estimates below of the number of years for a capped property to reach full assessed value.

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[43] However by restricting capping to hot properties based on total net value, properties with a high improvement-to-total value ratio would move more quickly to full assessed value as the lower rate of change in the improvements would temper the overall rate of change.

One of the main advantages of capping is that the impact can be targeted to those properties facing the largest tax increase. Unlike averaging, the capping mechanism designed here would not affect properties that do not face an exceptionally high increase in values. Most properties would not be capped, hence the total assessed value would not be changed.

We have assumed that, similar to averaging, the cost of capping (the taxes forgone) would be recovered from other properties in the same class[44].

9.4 Phase-In

We also developed and tested a phase-in option[45]. In general terms the phase-in options are designed to limit the percentage of the annual change in value that will be implemented in each year. For example, only 20% of the annual change might be included for the current year. The remaining 80% is phased in over the following years.

We analyzed a phase-in option to see if it might offer advantages relative to averaging or capping. We tested a phase-in mechanism where the phase-in only applies to hot properties. The "restricted" phase-in mechanism we used is applied only when the increase in total net value (exclusive of major new construction) exceeds the increase for the class as a whole by more than 10% before the phasing is applied.

The mechanism tested by the Commission is as follows:

If a property is a hot property, then the

> Annual $Change = [current land value– prior year phased land value]

and

> Phase factor=phase rate*[annual $change – prior year phased land value* % change in land for the entire Class]

The "phase rate" is the policy determined rate for phasing in changes in land value. We adopted a phase rate of 80% because the levels of 50% to 66% currently allowed are insufficient to address the hot property issue.

and

> Taxable assessed land=lesser of [assessed land – phase factor] or [current land value]

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[44] Council could decide to recover from all classes.

[45] The City has a phase-in option available under current legislation.

We only apply the phasing if the phase factor is positive; otherwise the current taxable land value is the same as the assessed value of the land.

Consider a simple illustration.

	Property A	Property B	Property C
Current assessed land value	$1,000	$1,000	$1,000
Prior year phased land value	$600	$900	$833
Annual change in land	$400	$100	$167
Change in land value for entire class	20%	20%	20%
Benchmark	80%	80%	80%
Phase factor	[$400-($600*0.2)]*0.80 = $224	[$100-($900*0.2)]*0.80 = $-64	[$167-($833*0.2)]*0.80 = $0
Current year phased land value	$1,000-$224=$776	$1,000 (no phasing as phase factor is negative)	$1,000 as phase factor is zero

Table 34: Illustration of the Impact of the Phase-in-Mechanism

It should be noted that the restricted phase-in mechanism we analyzed differs significantly from the phase-in mechanisms currently available to the City. Our restricted phase-in only applies if the property is a hot property before the application of the phase-in. It uses a 80% phase-in rate applied to the land component only.

The phase-in mechanism shares two features with the capping mechanism: it is focused, helping those properties facing the largest increases, and it may take longer to eliminate the use of the phasing mechanism than would averaging.

Before looking at the last three options (rebates to commercial tenants, unoccupied density allocation, and less frequent assessments, assessment freezes, and time of sale reassessment), we analyze the impact of averaging, capping, and phase-ins. These observations are based on the restricted mechanisms outlined above.

9.5 Impact of Three-Year Averaging, Five-Year Averaging, Capping, and Phase-ins

We used four considerations to evaluate the four options:

- Does the intervention reduce the number of hot properties?
- Is the intervention focused on helping those facing the largest increase in taxes?
- Does the intervention reduce the size of the impact on hot properties?

- Is the length of time to eliminate the option acceptable?

  We present the findings for Class 6 properties in the report; the results for Class 1 properties are presented in Appendix F and are consistent with the results for Class 6.

Does the intervention reduce the number of hot properties?

Figure 9 summarizes the evidence on the number of hot properties in Class 6 after each of the four interventions. Our data were limited to the period from 1997 to 2007 and since the full impact of a five-year land averaging would not be realized until 2001, we limit the presentation to the period from 2001 to 2007.

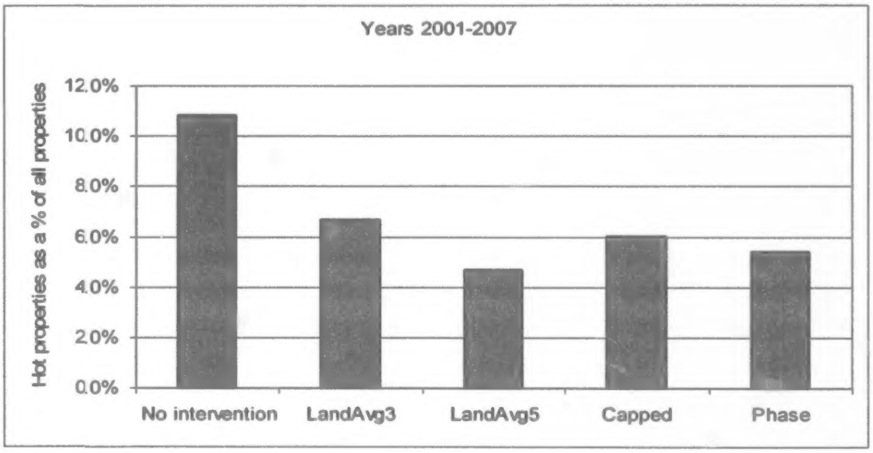

Figure 9: Percentage of all Class 6 Properties that are Hot Properties under the Various Forms of Intervention

Five-year land averaging and the phase-in mechanisms do the best job of reducing the number of hot properties. Three-year land averaging is the least effective form of intervention. Expressed in numbers of hot properties, if there is no intervention there were 8,975 hot properties in the period 2001-2007. Using five-year averaging the number of hot properties is reduced to 3,878; with the phase-in the number is reduced to 4,462.

Is the intervention focused?

A second consideration is to look at the number of properties that benefit from the intervention. We considered that a property benefited if its relative change in value under the intervention was less than the relative change before the intervention. In other words, the property would pay less tax with the intervention than without it. Those properties that do not benefit by this criterion are worse off because of the intervention.

As expected, the percent of properties benefiting from either of the land averaging is approximately 50%[46]. Capping was the most focused and benefited approximately 10% of all properties. The phasing mechanism benefited somewhat more properties than the capping mechanism, but significantly less than the averaging mechanisms.

Does the intervention reduce the size of the impact on hot properties?

A third consideration is to look at the remaining hot properties (after the intervention has been implemented) to determine if the intervention reduced the annual tax increases for those with the largest increases. Figure 10 presents the relative annual change in total values for the top 20% and top 10% of hot properties remaining after the intervention.

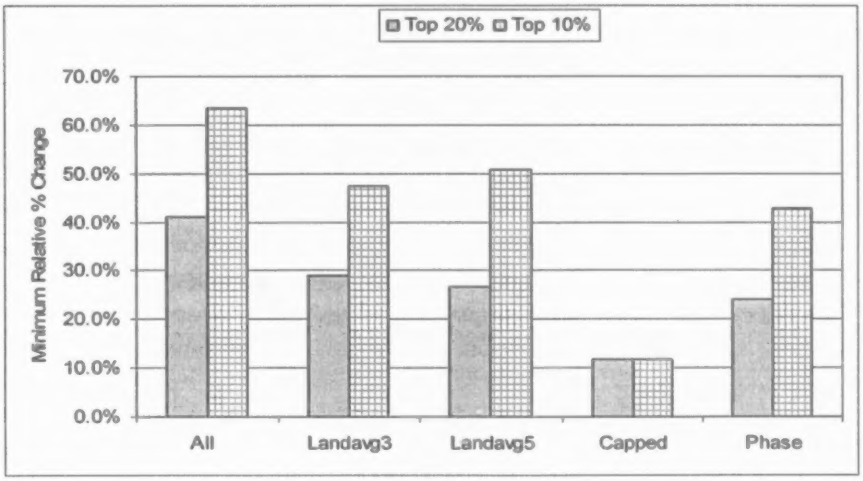

Figure 10: Class 6: Annual Relative Change in Total Value Experienced by the top 20% and Top 10% of Hot Properties.

In the absence of intervention, 20% of all Class 6 hot properties faced relative changes of 40% or more. In other words their taxes would increase 40% more than the average for the class. The top 10% would face relative changes of over 60%.

As one would expect, the capping mechanism is the most effective at compressing the relative changes for the top 20% and 10% of all hot properties. Indeed, it is significantly better than the other options. The phase-in mechanism is the second best option based on this consideration.

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[46] On a value weighted basis this would be exactly 50%.

Is the length of time to eliminate the option acceptable?

A final consideration we explored is the length of time it would take to eliminate the options.

What would happen if the City decided to stop three-year land averaging and move back to a current assessment basis for taxation? Obviously this could be done the following year by simply moving immediately to current assessments, but the change may be too sudden. A more reasonable approach may be first use a two-year average for one year, and then move to current values the following year; hence two years would be a reasonable time to eliminate land averaging[47].

Unfortunately it is much less clear how long it would take for a capped value or phased value to move to the full assessed value. It would depend upon the rate of change in value for the entire class and the rate of change in value for each capped or phased property. While we cannot provide a definitive answer, we are able to offer some helpful insights into this issue.

If one assumes that the annual increase in value for a capped or phased property would be approximately equal to the increase in value for the entire class starting the year after the cap or phase is applied, then it is possible to determine how long it would take to eliminate the intervention. Figure 11 provides a summary.

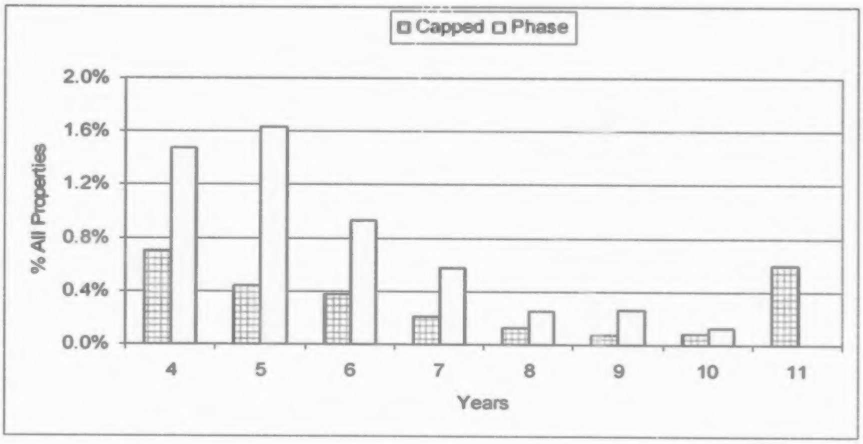

Figure 11: Number of Years for Capped or Phased Total Values to Reach Full Total Assessed Value (assuming the change in the total value for the property is equal to the change for the Class).

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[47] In the case of five-year averaging, a corresponding reasonable time would be four years to eliminate policy.

As Figure 11 shows, it would take longer for a capped property to reach its full assessed value than a phased property[48]. However, the percentage of all properties that would still be below full assessed value after three years is not large: only 2.6% of capped properties and 5.3% of phased properties would be below full assessed value after three years. In the case of the capping mechanism, a small percentage of capped properties would still be below full assessed value after 10 years.[49]

Summary of Findings on the Four Options

Based on the consideration of reducing the number of hot properties, five-year averaging works best. If targeting tax relief to those with the highest relative tax increases is a concern, averaging is the least preferred option. Capping and phase-ins are almost equally attractive. If the concern is to remove the extreme upper end of the relative changes, then capping is the preferred mechanism and the averaging mechanisms are the least preferred. Finally, if the concern is the length of time to remove the program, then three-year averaging is the best option followed by a phase-in. Capping is the least preferred option.

9.6 Rebate of Taxes to Commercial Tenants

Another option is to rebate a portion of the taxes to commercial tenants deemed to deserve a rebate, such as tenants in hot properties. Unlike other approaches, this option allows Council to direct relief to those most obviously affected by the volatility issue.

The use of rebates is not without significant challenges. In the first instance, it is necessary to define both the criteria for qualification and the rebate formula. One might consider a rebate program that covers tenants that were 'in place' in a hot property the year (or more) before to the significant increase. It would be possible to limit the time period for receiving rebates, possibly for a maximum of five years or until leases are renegotiated.

As with the other options considered above, the objective is not to avoid tax increases but rather to cushion the impact of tax increases. Hence the rebate might decline over a number of years following the significant increase that identified the property as a hot property. The use of a rebate would require a new administration system, one that would to track tenants and the space they occupy. This would create a major administrative burden for the City.

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[48] The three-year and five-year averaging mechanisms are not shown since the time is easily determined (at 32 or 4 years).

[49] It should be noted that we applied an "override" condition to both the capping and phase-in mechanisms. Technically the phased value never reaches full assessed value since the number that continues to phase out declines with each assessment. Therefore to bring closure, the mechanisms assume that when the capped or phased values get within 10% of full assessed value, the final adjustment would be made.

9.7 Unoccupied Density Allocation

The Vancouver Fair Tax Coalition suggested a tenant rebate where the amount of the rebate is linked to the value of the property that is associated with the "unoccupied density." This proposal directly addresses the issues faced by tenants occupying space that is significantly underdeveloped compared to its highest and best use. Since the value of the property, as estimated by the BC Assessment Authority, reflects prices paid in the market, and the market's view of a property's estimated highest and best use will be reflected in prices. Then it follows that the highest and best use will be reflected in the assessed values. Given that current density may be well below the density implicit in its market value, the taxes paid on the property per square foot of occupied space may be relatively high compared to properties that have been developed to their highest and best use.

The rebate formula proposed by the Coalition calculates the "unoccupied density" as the difference between the density implicit in the market prices and the current density[50]. The tenants collectively would be entitled to a rebate of taxes paid on the assessed value of the "unoccupied density[51]".

We see a number of significant weaknesses with the Vancouver Fair Tax Coalition's proposal:

- It is difficult to determine objectively the potential density implicit in the property's market valuation. The BC Assessment Authority may have a view on this implied density but it would be a judgment not an objective measure. Should the density be measured according to current development guidelines for the site or according to what the market believes might be the final development capacity? After all, the market may well be paying prices that reflect its best estimate of what will happen to density once development is about to occur. And the more flexible the development guidelines, the greater will be the uncertainty associated with this option value.
- Even if there is agreement on the appropriate density to be used, the timing of the future development may be uncertain. If the redevelopment is many years away, the prices being paid in the market may be heavily discounted. The combination of an uncertain final density and uncertain timing of the development makes the valuation a challenging exercise. The courts have long recognized the difficulties associated with appraising under-developed lands and these concerns would be increased many fold if this approach were applied to annual taxation of property.
- There is an issue of how to identify the deserving occupants. Does a tenant who moves into an undeveloped property receive the same rebate as a tenant that

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[50] For ease of discussion, we have simplified the description of how the rebate is calculated.

[51] The Coalition proposal goes further and suggests that the cost of the rebate be covered by the residential tax class where the highest and best use is residential.

occupied the property before values began to increase? Does a tenant deserve a rebate more than an owner-occupier in an identical property?

- There is the matter of variations in the lease terms under which the property is occupied. If the lease is a gross lease, the landlord pays the taxes and the tenant pays all inclusive gross rent. If the lease is a net lease, the tenant bears immediate responsibility for the taxes. Either both leases are treated in the same way or the City would need a new system of administration to collect and monitor lease contracts. This would be an unattractive outcome.
- Finally there is the challenge of determining if the tax rebate actually assists the occupant. Knowing that tenants may qualify for tax relief under this program, would landlords take this into consideration when negotiating leases and insert a clause to claw back any benefits the tenant may receive?

9.8 Less Frequent Assessments, Assessment Freezes, and Time of Sale Reassessment

One way to moderate the impact of market movements on taxes is to move away from an annual reassessment. BC, for example, experimented with biannual assessments during the 1980s. There are examples of other jurisdictions that revalue properties for tax purposes every three, four or five years. Some have even longer periods between reassessment. Under these approaches, assessed property values continue to be adjusted annually for physical changes (e.g. new construction) but not market value change.

Less frequent assessment clearly creates a period of stability in value, but does so at a price. It is very possible that small annual changes in value are replaced by larger and more dramatic shifts when properties are revalued less frequently. Annual valuation can smooth relative changes in value between properties.[52] When properties are revalued, there may still be a need to cushion the impact of market changes to avoid sudden large tax increases. Hence, less frequent valuation may not rule out the need for other measures.

The longer the period between reassessments, the further assessed values move away from market values. Since the fairness of the tax system depends on people in similar circumstances paying similar taxes, failure to incorporate market values for a long period of time weakens the underlying equity of the property tax system. Less frequent assessment promotes stability and predictability at the expense of equity.

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[52] It is also possible that less frequent valuation could smooth out some market changes – the actual impact is an empirical issue. Where some neighbourhoods are consistently increasing in market value faster than others, annual valuation would be smoother than less frequent valuation.

Finally it should be noted that when markets soften and prices fall, there is public pressure to incorporate declines in market value well before the scheduled reassessment.

An assessment freeze is similar in concept to less frequent valuation except the date of the next of the next revaluation is uncertain. However, assessment freezes are more problematic because the process for getting out of the freeze is extremely difficult. Therefore, an assessment freeze tends to create a situation where, over time, assessed values bear less and less relationship to market value. As a result properties with similar values pay different taxes; taxes payable become more arbitrary.

Even if properties continue to be reassessed during a freeze (the value used for tax purposes remains frozen), there is no incentive on the part of the property owners to review and challenge the assessment. Those who are being made wealthier by the market benefit at the expense of those whose property values are stagnant.

In the long run an increasingly inequitable tax can lead to as many taxpayer concerns as market volatility.

California has time of sale reassessment which was introduced under Proposition 13. Under the California system, property values are increased annually by the rate of inflation or 2 percent, whichever is less, until the property is sold. Once sold, the property is reassessed at its market value[53]. In effect, relative property values are frozen until such time as the property is sold. Like other assessment freeze policies discussed above this approach favours stability over equity. In California, such inequities have become pronounced. For example:

- Some owners pay 17 times as much in taxes as neighbours in comparable properties.
- Inequities can go on for generations: one young family buys a new home and pays market value taxes; another inherits a home and pays taxes on parents' acquisition value
- Young first-time homeowners face higher taxes because starter homes tend to turnover more frequently
- Older, more affluent and more stable families tend to benefit over younger, more mobile families.
- Existing businesses are favoured over new businesses

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[53] There is no reassessment if the property is transferred to the children of owner.

9.9 Conclusion

As noted previously, we find that the land averaging, while helpful in reducing the number of hot properties, does little to reduce the very high relative changes facing the remaining hot properties. The averaging mechanisms are not focused on the problem at hand -- the hot properties. There are better options to address the hot property issue without creating significant new problems.

We find that the both the capping and the phasing mechanisms offer a number of advantages over averaging: they focus on delivering maximum assistance to the hot properties. They both reduce the number of hot properties, and they both result in a significant reduction in the relative increase facing the remaining hot properties. Both capping and phasing result in a longer length of time to eliminate the impact of the intervention, but this is more significant with capping than with phasing.

We prefer the phasing mechanism to capping because it takes less time to eliminate the impact.

All four mechanisms offer increased predictability and stability and to some degree weaken the link to current assessments. All four mechanisms are revenue neutral since the cost of the intervention is borne by other properties in the class. However, all four mechanisms have different impacts in terms of who pays for the interventions.

We do not advocate either a system of rebate to commercial tenant, in part because of the challenges to ensure the tenants receive the benefit and in part because of the additional administration requirements.

The Unoccupied Density Allocation advanced by the Vancouver Fair Tax Coalition is a creative mechanism, but we reject it on two grounds. First, it is essentially based on a "current use" valuation. Second, we recognize the serious valuation issues inherent in the mechanism. It is well recognized in the appraisal literature that the most challenging valuation problems relate to underdeveloped properties.

10.0 CONCLUSIONS AND RECOMMENDATIONS - VOLATILITY ISSUE

10.1 Introduction

The Commission was asked to recommend a strategy to enhance the stability and predictability of property taxes for individual properties in the face of sudden, year-over-year increases in market value.

The Commission analyzed the extent to which volatility (sometimes referred to as "hot spots") is a major issue in Vancouver and the key factors that determine whether an individual property will face sudden, year-over-year increases. This analysis was used to determine the extent of the problem and to come up with possible solutions.

10.2 The Extent of the Problem

The Commission defined the benchmark for identifying hot properties as those having a year-over-year increase in total net value of more than 10% above the average for the class. The findings from our analysis indicate that there are a significant number of Class 1 and Class 6 properties facing relatively large increases in taxes, likely beyond the level property owners might have reasonably anticipated. The problem, both in terms of percentage of all properties in the class and in terms of the level of relative changes, was significantly worse for Class 6 properties.

For Class 6 properties, an important distinction has to be made between the impact of hot properties on owners and tenants. Owners taxed on the basis of highest and best use have to pay the higher property taxes but ultimately benefit from the corresponding increase in their property value. A tenant, on the other hand, pays higher property taxes through their rent but does not directly benefit from the increased property value. Where tenants sign a net lease, they would bear any unanticipated increases in property taxes at least until the lease is renewed.

10.3 Three-Year Land Averaging

Our analysis of three-year averaging shows that the incidence of hot properties is significantly reduced when averaging is used, but a number of hot properties still remain. Three-year land averaging is not as effective in reducing the number of hot properties in on Class 6 properties as it is for Class 1 properties. Furthermore, averaging lacks focus: all properties, not just those facing the highest increase are averaged

10.4 Five-Year Land Averaging

Since the impact of three-year land averaging was found to be positive, the Commission analyzed the impact of moving to a five-year land averaging program. Our analysis indicates that the effect of five-year land averaging is to reduce further the incidence of hot properties both in Class 1 and Class 6 (although there are still a number of hot properties remaining). However, as with three-year land averaging, five-year averaging does little to reduce the significant relative changes facing the remaining hot properties.

10.5 Capping

We find some attractive features in the restricted capping mechanism we analyzed. Capping reduces the number of hot properties. The intervention is focused on properties facing the largest tax increases, offering maximum assistance to the hottest properties by reducing the relative increases they face. However, we remain concerned that some properties would continue to be assessed below full value for many years.

10.6 Phase-in

We find the restricted phase-in mechanism offers a number of advantages similar to the capping but without the one major problem. Like the capping mechanism, the phase-in mechanism is focused, it reduces the number of hot properties and it reduces the high relative changes facing the remaining hot properties more than averaging. Moreover it can be phased out in a reasonable period of time.

The Commission recommends that:

Recommendation #4:

The City should adopt a restricted phase-in mechanism that would replace the three-year land averaging for Class 1, Class 5 and Class 6. The phase-in mechanism would apply only to properties that would otherwise experience a tax increase that is 10% or more above the average for the class, exclusive of new construction.

The proposed phase-in mechanism is considerably different than that allowed under current legislation. Therefore, Provincial approval would be required to develop a phase-in mechanism along the lines recommended.

Recommendation #5:

The City of Vancouver should maintain the present three-year land averaging program for Class 1, Class 5 and Class 6 properties until such time as a phase-in mechanism is developed.

10.7 Other Ways to Cushion the Impact of Large Year-Over-Year Increases on Individual Properties

The Commission looked at other ways to cushion the impact of large year-over-year tax increases on individual properties (such as time of sale reassessment in California and other U.S. states and the capping method used in Ontario). We have rejected property tax freezes as a way to address volatility because it breaks the link between taxes and market values: taxes are based on an unchanging measure (e.g. the previous year's taxes) rather than on market value. Breaking this link means that taxes are less uniform and more arbitrary. It also means that taxes will not be equitable because properties with similar market values may not be paying the same taxes. Experience from other jurisdictions tells us that it is extremely difficult to remove a freeze on property taxes once it has been implemented.

Similarly we reject the Unoccupied Density Allocation mechanism since it essentially moves to a current use assessment base and would create significant valuation issues.

10.8 Tenants with Net Leases

We received several submissions during the hearing outlining the problems tenants are facing in terms of property taxes. The issues focused on three points: the level of taxes, the impact of significant annual changes, especially for tenants on net leases; and the impact of increasing land values on properties with development potential. While all three issues are of concern to the presenters, it was the combination of the three issues that appeared to create the most serious problems for the tenants.

We recognize that our recommendations are not directly focused on tenants. At the same time, we are aware of these issues and believe the combination of our recommended tax shift from Class 6 to Class 1, coupled with a more focused effort to address the hot property issue, will help address the challenges facing tenants. The tax shift provides an immediate level of permanent relief. The proposed phasing provides a longer period of adjustment than the averaging currently in place, a period of time that will more closely align with the term of many commercial leases.

10.9 Further Considerations

The Commission believes that the property tax is generally a good tax for local government but there are some problems with it, especially as it applies to non-residential properties.

The Commission believes that most of the weaknesses of the property tax are not appropriately solved by tampering with the market value system. A more satisfying approach would be to move away from property taxes on business properties. Specific public services benefiting specific business enterprises should be paid for by appropriate user charges. Where user charges are not feasible, some form of broadly-based, general levy on business activity is warranted. This line of reasoning suggests that a broadly-based levy, such as a tax on value added, is likely the best form of local business tax. We do not consider this option further in this report, however, because it is well beyond the mandate of this Commission.

APPENDIX A: TERMS OF REFERENCE

TERMS OF REFERENCE FOR THE CITY OF VANCOUVER PROPERTY TAX POLICY REVIEW COMMISSION

APPROVED BY VANCOUVER CITY COUNCIL SEPTEMBER 28, 2006

1. OBJECTIVE

The Property Tax Policy Review Commission has been established to engage Vancouver's business and residential communities, as well as other key stakeholders, in order to:

- recommend to Vancouver City Council a long-term policy that will define and achieve a "fair tax" for commercial property taxpayers, addressing the perceived inequity in the share of the City of Vancouver's property tax levy that is paid by the non-residential property classes, as compared to the share paid by the residential property class, and
- to recommend a strategy to enhance the stability and predictability of property taxes for individual properties in the face of sudden, large year-over-year increases in market value.

2. BACKGROUND

2.1 Purpose of the review – The Property Tax Distribution Commission has been established by Council in response to concerns expressed to Council by the business community about the impacts of the City's current property tax policy on the health and competitiveness of Vancouver's economy. In recent years, the Vancouver Fair Tax Coalition (led by the Vancouver Board of Trade, and made up of representatives from local business improvement associations, small business owners and managers, industrial and office property owners and developers and business associations) has been telling City Council that they feel annual property tax increases are exceeding local business's ability to pay and are affecting the long-term competitiveness of business in Vancouver. They also feel that Council's land policy has been resulting in disproportionate growth of the residential class, and that these policies may ultimately be counter-productive to achieving the City's long-term goals.

In response, on April 20, 2006, Council recommended:

> *THAT Council instruct staff to propose a process to engage the business community, residential taxpayers and other key stakeholders to arrive at a long-term goal of defining and achieving a "fair tax" for commercial taxpayers. The goal should be achieved within the current framework of a "fixed burden" approach where the allocation of the levy among the classes of property remains constant over time subject to physical changes within classes or to*

Council action, and the report is to articulate processes on how shifts might occur.

2.2 **Study of Consumption of Tax-Supported Services** – In 1995, at the recommendation of the Property Tax Task Force, Council commissioned KPMG Consulting to undertake a review of the consumption tax-supported City services by the residential and non-residential classes of property. The report was received by Council and has formed part of the rationale for the shifts of property taxation from the non-residential to the residential property classes in subsequent years. On July 18, 2006, Council commissioned MMK Consulting to undertake an update of this 1995 study. It is expected that the results of this work will be used by the Commission as an important component of their review of the City's property tax distribution.

2.3 **The Current Tax Distribution** – This table shows the share of the City of Vancouver's property tax levy paid by each of the seven property classes in 2006.

	2006 TAX LEVY ($000s)	% SHARE
Class 1 - Residential	$214,239	44.9%
Class 2 - Utilities	$6,296	1.3%
Class 4 - Major Ind.	$5,542	1.2%
Class 5 - Light Ind.	$4,529	0.9%
Class 6 - Business	$246,451	51.6%
Class 8 - Seasonal	$291	0.1%
Class 9 - Farm	< $1	< 0.0%
Total	$477,348	100.0%

3. DELIVERABLES

The Property Tax Distribution Commission is asked to report to Council on the following items.

3.1 **Assessment of Current Policies** – Review the City of Vancouver's current property tax policies, and analyse the impact of these policies on Vancouver's business, industrial and residential taxpayers, highlighting key issues and identifying any inequities. Include as part of this work the following:

a. *Evaluation Criteria* – Recommend to Council the appropriate criteria to use to assess the fairness of the City's property tax policies. The Commission can use as a starting point the evaluation criteria set out in the April 1994 *Task Force on Property Taxation Report to Council*. Evaluation criteria may include benefits received, ability to pay, equal treatment of equals, accountability, stability and predictability of taxes for an individual property from year to year, cost of administering and collecting the tax, socioeconomic impacts of the tax and/or impact of the tax on the competitiveness of Vancouver businesses.

b. *Appropriate Measures* – Recommend to Council the appropriate measures to use in order to assess the impact of the City's property tax policies on taxpayers within each of the City's property classes, to determine the fairness of the City's property tax policies, and to understand the impact of Vancouver's property taxes on commercial competitiveness. The Commission is asked to select measures that can be calculated using supportable, proven methodology, and to ensure that any comparisons made between Vancouver and other cities are meaningful, taking into account the considerable differences among municipalities in property tax and assessment systems, methodologies, market values and property types.

3.2 **Fair Tax Target Distribution Target** – Recommend to Council a definition of a "fair tax," expressed as a set of target percentage shares of the City's property tax levy among the various property classes.

3.3 **Implementation Strategy** – Recommend a strategy that would allow Council to arrive at the recommended fair tax distribution target, with specific timelines identified.

3.4 **Long-Term Policy and Mechanism** – Recommend to Council a long-term policy and mechanism that would allow Council to permanently maintain a fair tax distribution among the City's property classes.

3.5 **Strategy for Enhanced Stability and Predictability** – Assess the causes of the negative tax impacts of year-over-year land value changes for properties located in market "hot spots," where forces such as market activity or zoning changes lead to a rapid increase in property taxes for certain properties, and recommend to Council measures that could be implemented to mitigate these impacts, for both residential and non-residential properties.

4. PRINCIPLES AND GUIDELINES

The Commission is asked to undertake their work using the following principles and guidelines.

4.1 **Equity** – Members of the Commission should have an appreciation of the impacts of any changes to the tax distribution on all classes of taxpayers.

4.2 **Sustainability** – The recommendations made to Council by the Commission should be consistent with the City's long-term objectives concerning economic, fiscal and social sustainability.

4.3 **Independence and objectivity** – Members of the Commission should serve independently, and to the best of their abilities make recommendations to Council that will result in the best possible outcome for Vancouver as a whole, without favouring any one stakeholder group over another.

4.4 **Simplicity** – Any recommended changes to the City's property tax policies should be simple, transparent, and readily understandable by the City's taxpayers and other stakeholders.

4.5 **Consultation** – The Commission should appropriately engage the business community, residential taxpayers and other key stakeholders in the process undertaken to arrive at their recommendations.

4.6 **Transparency** – The work done by the Commission should be transparent, with the Commission's public process minuted, and recommendations reported to Council and available to the public.

4.7 **Maintain Fixed-Share Approach** – The recommendations of the Commission should be developed within Council's current tax policy framework of a "fixed share" approach to determining the property tax distribution, in which the share of the total tax levy allocated among property classes is determined by Council rather than by changes to market values.

4.8 **Municipal Taxes Only** – The work of the Commission should be limited to a review of the distribution of property taxes levied by the City of Vancouver (termed "general taxes"), and should not include property taxes collected by the City of Vancouver on behalf of other taxing authorities.

5. SCHEDULE

1. The Commission is expected to deliver recommendations to City Council by March 1, 2007, in time for implementation for the City of Vancouver's 2007 taxation year.
2. Should the work of the Commission not be completed by March 1, 2007, the recommendations made at that time can be made as interim recommendations, with the final recommendations of the Commission to be delivered to Council no later than June 1, 2007.
3. The number of Commission meetings and the schedule for these meetings will be determined by the Commission members.

4. The stakeholder consultation process will include opportunities for public input; the specific details of and the schedule for this process will be determined by the Commission members.

6. WORKING RELATIONSHIPS

1. **Vancouver City Council** – The Commission will make recommendations to Council that address each of the items listed in the Deliverables section of these Terms of Reference.
2. **City of Vancouver Staff** – City staff support will be made available to the Commission. The Director of Finance will provide financial data as requested by the Commission, and will manage the Commission's requests for any other staff support or services.
3. **Stakeholders** – The Commission will determine the appropriate process for incorporating into their work input from various non-residential and residential taxpayer groups, plus any other stakeholders that wish to have input into this process.
4. **Professional and Academic Experts** – In the course of their work, the Commission may wish to consult various processional and/or academic experts in the field of property taxation or public finance.

7. HONORARIA AND BUDGET

1. The Commission will be allocated a preliminary budget of $100,000.
2. $35,000 of the Commission's budget will be allocated to honoraria paid to the Commissioners: $15,000 to the Chair and $10,000 to each of the other two Commissioners.
3. Spending the discretionary component of the budget will be determined by the Chair in consultation with the City of Vancouver's Director of Finance.
4. The Commission Chairperson, in consultation with the Director of Finance, will report back to Council with any further financial requirements of the Commission.

CITY OF VANCOUVER TAX POLICY REVIEW COMMISSION, PRELIMINARY BUDGET

Honorarium, Chairperson	$15,000
Honoraria, Other Two Commissions	$20,000
Discretionary Budget	$65,000
Total Budget	$100,000

8. BACKGROUND MATERIALS

The following is a list of important background documents and information for Commission members. City staff will provide the Commission any other available documentation and data that is requested.

DATE	DOCUMENT / REFERENCE
1979	*1979 Assessment Act*, Chapter 21 and various amendments
1982	*Municipal Expenditures Restraint Act Chapter 22 (assented to June 2, 1982)*
1983	*Property Tax Reform Act, No. 1 1983, Chapter 23 & The Property Tax Reform Act, No 2, 1983, Chapter 24*, as well as related *Table of Statutes*, updated to December 31, 1996
1983	*British Columbia Gazette*, December 27, 1983
1984	*Variable Tax Rates: A Guide to Implementation, Province of British Columbia Ministry of Municipal Affairs*
1984	Local Government Act, Tax Rate Limits Regulation
1989	*Report of the Municipal Taxation Review Commission, March 1989*
1994	*City of Vancouver Task Force on Property Taxation Report to Council, April 1994*
1995	*Study of Consumption of Tax-Supported City Services*, KPMG Consulting , March 1995
1996	Local Government Act; Sechelt Indian Government District Enabling Act, Vancouver Charter – Taxation Rate Cap for Class 2 Property Regulation, November 18, 1996
2004	*Enhancing Toronto's Business Climate – It's Everybody's Business, Attachment 2, 2004 Public Consultation – Synopsis of Tax Policy Workshop Comments* (www.toronto.ca/finance/tax_policies.htm)
2004	Local Government Act, Improvement District Tax Regulation
2005	Council report, *2005 Property Taxation: Distribution of Property Tax Levy* and associated meeting minutes, April 28, 2005
2006	Council report, *2006 Property Taxation: Distribution of the Property Tax Levy* and associated meeting minutes, April 20, 2006
2006	Report of the City of Vancouver Roles, Relationships and Responsibilities Review Committee and associated meeting minutes, July 20, 2006
2006	*Comparison of Municipal Operating Expenditures*, prepared for the Fair Tax Coalition by MMK Consulting, March 16, 2006
2006	City of Vancouver *2005 Annual Financial Report, March 2006*
Currently underway	City of Vancouver Metropolitan Core Jobs and Economy Land Use Plan – www.city.vancouver.bc.ca/commsvcs/planning/corejobs
Currently underway	Update to the Study of Consumption of Tax-Supported Services, by MMK Consulting Inc.

APPENDIX B: ABOUT THE COMMISSIONERS

Property Tax Policy Review Commission Members

Dr. Stanley W. Hamilton, Chair

Dr. Stanley W. Hamilton is the Philip H. White Emeritus Professor of Real Estate, Sauder School of Business, University of British Columbia and a member of the Finance Division. He has extensive teaching and research experience in the areas of real estate investments, real property assessment and taxation and pensions. Stan is the Past Chair of the Board of Trustees of the UBC Faculty Pension Plan and Past Director of the Bureau of Asset Management (UBC Commerce).

Stan served as a member with the BC Commission of Inquiry on Property Taxation and Assessment for the province of British Columbia and as a Director for the B.C. Assessment Authority. He was a trustee of CREIT, a major real estate investment trust, and member and past chair of the Vancouver City Planning Commission. Stan also served as a Public Governor of the Vancouver Stock Exchange.

Stan is actively engaged in a number of community organizations including the Investment Advisory Committee for the Public Guardian and Trustee of British Columbia, Financial Service Tribunal, UBC Development Permit Board and the Arts Club Theatre Company.

Mr. Peter Adams

Peter is an independent consultant based in Victoria, BC. He is an economist by training with Bachelor and Master's degrees from the London School of Economics and Political Science. His fields of expertise include public finance, taxation and public policy analysis. Since 1986, he has completed more than 250 consulting assignments for various public and private sector clients, including property tax payers and local governments. For example, he was research director for the "Financing Local Government" studies commissioned by the provincial government and the Union of British Columbia Municipalities. He also served on the research staff of the Sullivan Royal Commission on Education.

Prior to joining the consulting field, Peter held a number of senior positions with the government of British Columbia including Director of the Tax and Fiscal Policy Branch of the Ministry of Finance. Peter has held faculty positions at the London School of Economics and the University of Nairobi and an adjunct position at the University of Victoria.

Dr. Enid Slack

Dr. Enid Slack is the Director of the Institute on Municipal Finance and Governance at the Munk Centre for International Studies at the University of Toronto. She is also an Adjunct Professor at the university, teaching a graduate course in urban public finance to the planning students. Enid has been president of Enid Slack Consulting Inc. since 1981. Enid advises governments and private companies in Canada and abroad on property taxes, intergovernmental transfers, and other local finance issues.

Currently, Enid chairs the Intergovernmental Committee for Economic and Labour Force Development in Toronto (ICE) and is on the Advisory Board of the International Property Tax Institute. In 1999, she was a member of the Business Reference Group to the Assessment and Tax Policy Task Force for the City of Toronto.

Enid has co-authored four books and published numerous articles on property taxes and urban public finance. Her most recent book is entitled International Handbook on Land and Property Taxation (co-edited with Richard Bird).

APPENDIX C: TAX SHARE ISSUE

This appendix contains supporting information on four issues discussed in Section 5:

- Analysis of Assessed value per Square Foot – class 6 properties in the City of Vancouver
- Comparison of Taxes per Square Foot – Canadian Cities
- Comparison of Taxes per Square Foot – Individual Properties in Vancouver, Burnaby and Richmond
- Trends in rental and vacancy rates in Vancouver, Burnaby and Richmond

Assessed Value Per Square Foot – Class 6 Properties in the City of Vancouver

Introduction

Section 5.5 of the report uses taxes per sq foot as one indicator of the burden of property taxes on different types of property and in different communities. Section 5.5 uses illustrative examples on individual properties.

To show how taxes can vary widely even within a jurisdiction, this sub-section provides an overview of variations in assessed value per sq. ft. across a large number of Class 6 properties in the City of Vancouver.

The information is taken from a special data run provided by BC Assessment which covers a large proportion of properties in the City. The data is taken from the 2006 assessment roll before averaging.

We have summarized the data using three indicators of relative value:

- Assessment per sq ft – gross total assessed value per sq ft of improvements
- Land value per acre – gross assessed land value per acre of land
- Improvement value per sq ft - gross assessed value of improvements per sq ft of improvements

Commercial properties in the City of Vancouver are a mix of strata and non-strata properties. Table 35 shows the distribution of properties in our sample by neighbourhood and by type of property. It compares the number of properties in the sample provided by BC Assessment to the total of taxable commercial properties in 2006. Overall, the sample is missing 15% of properties but some neighbourhoods are less well represented than others. Also, some of the missing properties are of high value and the sample represents only 67% of taxable properties by value.

Neighbourhood	# Strata properties	# Non-Strata properties	Sub-total	# Missing Properties	# Taxable Properties	% missing
1	86	62	148	10	158	6%
2	285	328	613	84	697	12%
3	54	53	107	15	122	12%
4	18	8	26	8	34	24%
5	85	94	179	14	193	7%
6	33		33	17	50	34%
7	450	434	884	159	1043	15%
8	30	15	45	5	50	10%
9	16	41	57	22	79	28%
10		7	7	3	10	30%
11	1	5	6	1	7	14%
12	48	70	118	25	143	17%
13	355	940	1295	368	1663	22%
14	104	507	611	111	722	15%
15	90	218	308	36	344	10%
16	42	213	255	36	291	12%
17	40	82	122	13	135	10%
18	302	140	442	98	540	18%
19	37	72	109	25	134	19%
20	41	92	133	30	163	18%
21	44	93	137	30	167	18%
22		32	32	17	49	35%
23	120	158	278	74	352	21%
24	58	42	100	19	119	16%
25	8	10	18	3	21	14%
26	2182	538	2720	155	2875	5%
27	124	167	291	54	345	16%
28	25	14	39	52	91	57%
29	763	189	952	116	1068	11%
30	230	6	236	149	385	39%
Grand Total	**5671**	**4630**	**10301**	**1749**	**12050**	**15%**

Table 35: Distribution of Sample Properties by Neighbourhood

Although strata properties have a land value associated with them, the data provided by BC Assessment did not indicate a land area associated with that value. Therefore, the following discussion uses data for non-strata properties only.

Assessed value Per Sq Ft – Non-Strata properties

Table 36 shows the distribution of assessed value per sq. ft. for non-strata properties. The mean value for this group of properties is $149 per sq ft, which translates into a tax burden (City taxes only) of $2.13 per sq ft in 2006.[54] As Table 35 shows, there is a wide distribution in the assessed value of properties per sq ft in the City. The largest group is clustered in the $50 to $250 range. However, even within this group, there is still a five fold difference in assessed value per sq ft.

Assessed Value per Sq Ft	Number of Properties	Per Cent of Total
<$25	113	2%
$25-$49	176	4%
$50-$99	913	20%
$100-$149	957	21%
$150-$199	797	17%
$200-$249	531	11%
$250-$299	333	7%
$300-$399	372	8%
$400-$499	194	4%
$500-$599	84	2%
$600-$699	43	1%
>$700	117	3%
	4630	100%

Table 36: Distribution by Assessed Value per Square Feet – Non-strata properties

The wide variation in assessed value per sq. ft. shown in Table 36 is influenced by three major factors: differences in land values, differences in improvement values and differences in the floor space ratio (FSR). Table 37 shows the distribution of assessed land values per acre in the City. The mean value for this group is $4.8 million per acre but the distribution is very wide. 17% of properties have land values in excess of $10 million per acre and 17% have land values less than $2 million per acre.

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[54] Calculated using a City tax rate of $14.287 on un-averaged values. The tax rate on averaged values was $15.483.

Land value per acre ($ million)	Number of Properties	Percent of Total
<$1	206	4%
$1-$1.99	656	14%
$2-$2.99	654	14%
$3-$3.99	819	18%
$4-$4.99	434	9%
$5-$5.99	309	7%
$6-$6.99	285	6%
$7-$7.99	177	4%
$8-$8.99	131	3%
$9-$9.99	150	3%
>$10	782	17%
Total	**4603**	**100%**

Table 37: Distribution of Land Values – Non-strata properties

The relationship between land value and other factors is most clearly seen in Table 38 which shows the distribution of non-strata properties by neighbourhood. As it to be expected, land values are highest in the core commercial areas of the City and they are higher on the West side than on the East side. Improvement values per sq ft also vary by neighbourhood. These differences are most likely related to average building age.

In addition, FSR varies by neighbourhood. Most neighbourhoods have an FSR less than one (a one story retail building occupying the whole of a site would have an FSR of one). The Downtown area where all the major office towers are located has the largest average FSR. Because of this high FSR, the average assessed values per sq ft in the Downtown area is very close to the average for all properties in the City. Therefore, the assessed value per sq. ft. on a property may not be very high, even in an area where land prices are high, if the property is developed to a significant density. In the same neighbourhood, an underdeveloped property with a relatively low FSR can have a relatively high assessed value (and therefore taxes) per sq. ft.

Neigh #	Neighbourhood	Number of Properties	Land value per acre ($ million)	Improvement value per sq ft	FSR	Assessed Value per Sq ft
1	POINT GREY	62	$5.31	$58	0.52	$293
2	KITSILANO	328	$8.53	$42	1.03	$233
3	DUNBAR	53	$7.62	$17	0.61	$304
4	ARBUTUS	8	$2.57	$70	0.49	$190
5	KERRISDALE	94	$8.88	$55	1.00	$260
6	SOUTHLANDS					
7	FAIRVIEW	434	$7.81	$51	1.50	$170
8	SHAUGHNESSEY	15	$8.64	$58	0.67	$355
9	CAMBIE	41	$5.17	$40	0.60	$237
10	SOUTH GRANVILLE	7	$3.92	$59	0.70	$187
11	OAKRIDGE	5	$0.88	$18	0.09	$235
12	MARPOLE	70	$4.52	$37	1.04	$137
13	MT PLEASANT	940	$2.71	$27	0.92	$95
14	GRANDVIEW	507	$2.51	$29	0.91	$92
15	CEDAR COTTAGE	218	$3.36	$28	0.61	$154
16	MAIN/FRASER	213	$3.88	$53	0.73	$176
17	SOUTH VANCOUVER	82	$3.29	$73	0.60	$199
18	MARINE DRIVE	140	$1.07	$30	0.55	$75
19	KNIGHT	72	$3.37	$45	0.75	$148
20	HASTINGS EAST	92	$2.43	$34	0.79	$105
21	RENFREW	93	$1.40	$34	0.49	$100
22	RENFREW HEIGHTS	32	$2.26	$34	0.39	$169
23	COLLINGWOOD	158	$3.35	$32	0.71	$141
24	KILLARNEY	42	$3.78	$39	0.52	$206
25	FRASERVIEW	10	$1.66	$124	0.29	$254
26	DOWNTOWN	538	$16.25	$81	4.84	$158
27	WEST END	167	$15.36	$75	1.25	$356
28	HARBOUR	14	$8.68	$136	3.16	$199
29	DOWNTOWN SOUTH	189	$15.67	$46	2.42	$195
30	FALSE CREEK NORTH	6	$2.79	$30	0.42	$182
	TOTAL	**4630**	**$4.88**	**$55**	**1.19**	**$149**

Table 38: Components of Value by Neighbourhood – Non-strata properties

Comparison of Taxes per Square Foot – Canadian Cities

This sub-section provides additional detail on the comparisons of taxes per square foot presented in Section 5.4 of the report. To ensure comparability to the other Cities, the tax rate for Vancouver includes the municipal tax rate plus tax rates for regional and transit service.

High Quality Downtown Office Buildings
Estimated 2007 Municipal Property Tax and Business Tax Per Square Foot

	Vancouver	Vancouver	Vancouver
Floorspace	653,414	737,954	255,167
2007 Assessed Value	$218,618,000	$187,858,000	$65,311,000
2007 "Averaged" Assessed Value	$207,603,000	$177,708,333	$58,602,667
2007 Local Govt Tax Rate	$15.4223	$15.4223	$15.4223
Business Tax Rate	n/a	n/a	n/a
Assumed Typical Business Assessment per sq.ft.	n/a	n/a	n/a
Business Tax per sq.ft.	n/a	n/a	n/a
Total Municipal Levy per sq.ft.	$4.90	$3.71	$3.54
Estimated Current Market Gross Rental Rate per sq.ft.	$55	$53	$46

High Quality Downtown Office Buildings
Estimated 2007 Municipal Property Tax and Business Tax per Square Foot

	Toronto	Toronto	Toronto
Floorspace	549,000	644,064	457,000
2007 Assessed Value	$185,700,000	$218,774,000	$151,854,000
2007 Municipal Tax Rate	$21.1745650	$21.1745650	$21.1745650
Municipal Property Tax per sq.ft.	$7.16	$7.19	$7.04
Business Tax Rate	n/a	n/a	n/a
Assumed Typical Business Assessment per sq.ft.	n/a	n/a	n/a
Business Tax per sq.ft.	n/a	n/a	n/a
Total Municipal Levy per sq.ft.	$7.16	$7.19	$7.04
Estimated Current Market Gross Rental Rate per sq.ft.	$55.00	$54.00	$54.00

High Quality Downtown Office Buildings
Estimated 2007 Municipal Property Tax and Business Tax per Square Foot

	Calgary	Calgary	Calgary	Calgary
Floorspace	776,559	143,548	386,872	969,911
2007 Assessed Value	$346,560,000	$52,510,000	$137,180,000	$459,680,000
2007 Municipal Tax Rate	$9.9230	$9.9230	$9.9230	$9.9230
Municipal Property Tax per sq.ft.	$4.43	$3.63	$3.52	$4.70
Business Tax Rate	7.81%	7.81%	7.81%	7.81%
Assumed Typical Business Assessment per sq.ft. *	$30.00	$30.00	$30.00	$30.00
Business Tax per sq.ft.	$2.34	$2.34	$2.34	$2.34
Total Municipal Levy per sq.ft.	$6.77	$5.97	$5.86	$7.05
Estimated Current Market Gross Rental Rate per sq.ft.	$60.00	$60.00	$60.00	$60.00

Notes: Actual Business Assessments are not available

We assume that the Business Assessment would be based on a mid-2006 lease rate of $30 per sq. ft. net

High Quality Downtown Office Buildings
Estimated 2007 Municipal Property Tax and Business Tax per Square Foot

	Winnipeg	Winnipeg	Winnipeg	Winnipeg
Floorspace	503,000	174,600	542,865	246,535
2007 Assessed Value	$61,658,000	$9,793,000	$63,812,000	$20,918,000
2007 Municipal Tax Rate	$25.4480	$25.4480	$25.4480	$25.4480
Taxable Share of Assessment	65%	65%	65%	65%
Municipal Property Tax per sq.ft.	$2.03	$0.93	$1.94	$1.40
Business Tax Rate	7.75%	7.75%	7.75%	7.75%
Typical Business Assessment per sq.ft.	$18.00	$10.00	$14.00	$12.00
Business Tax per sq.ft.	$1.40	$0.78	$1.09	$0.93
Total Municipal Levy per sq.ft.	$3.42	$1.70	$3.03	$2.33
Estimated Current Market Gross Rental Rate per sq.ft.	$32.00	$21.00	$25.00	$24.00

Comparison of Taxes per Square Foot – Individual Properties in Vancouver, Burnaby and Richmond

This sub-section provides additional information on the properties used to illustrate differences in taxes per square foot among the three comparison communities, Vancouver, Burnaby and Richmond, as presented in Section 5.5 of the report. Additional information is also presented on the characteristics of the properties including land area and FSR.

Downtown and Town Centre Office Properties

	Vancouver		
Description	AAA Downtown Office Building	Class B Downtown Office Building	Class A Downtown Office Building
Floor Area	653,414	142,935	255,167
2007 Assessment (1)	$207,603,000	$22,136,667	$58,602,667
2007 Municipal Tax Rate	$13.347540	$13.347540	$13.347540
Estimated 2007 Taxes	$2,770,989	$295,470	$782,201
2007 Taxes per Square Foot of Floor Area	$4.24	$2.07	$3.07
Estimated Total Current Occupancy Costs Per Square Foot	$54	$35	$46
2007 Assessed Improvements Value	$152,579,000	$4,503,000	$30,868,000
2007 Assessed Land Value	$66,029,000	$22,042,000	$34,433,000
2007 Average Assessed Land Value (2)	$55,024,000	$17,633,667	$27,734,667
Total 2007 Assessed Value	$218,608,000	$26,545,000	$65,301,000
Total 2007 Averaged Assessed Value (1)	$207,603,000	$22,136,667	$58,602,667
Land Area	58,276	29,990	81,936
Assessed Land Value psf of Land Area (1)	$944	$588	$338
Total Assessed Value psf of Land (1)	$3,562	$738	$715
Floor Area	653,414	142,935	255,167
Assessed Improvement Value psf of Improvements (1)	$234	$32	$121
Total Assessed Value psf of Improvements (1)	$318	$155	$230
Land Value per Acre ($million)	$41.0	$25.5	$14.7
FSR	11.2	4.8	3.1

Notes: 1. 2007 Assessed Values for Vancouver are the Average Assessed Values for Tax Purposes
2. Average Assessed Land Value is only used in Vancouver

	Burnaby		
Description	Major Class A Office Building	Class A Office Building	Class A Office Building
Floor Area	263,639	97,162	159,860
2007 Assessment (1)	$54,324,000	$17,452,000	$31,490,000
2007 Municipal Tax Rate	$10.66010	$10.66010	$10.66010
Estimated 2007 Taxes	$579,099	$186,040	$335,687
2007 Taxes per Square Foot of Floor Area	$2.20	$1.91	$2.10
Estimated Total Current Occupancy Costs psf	$43	$30	$30
2007 Assessed Improvements Value	$40,991,000	$9,308,000	$24,611,000
2007 Assessed Land Value	$13,333,000	$8,144,000	$6,879,000
Total 2007 Assessed Value	$54,324,000	$17,452,000	$31,490,000
Land Area	93,600	47,908	40,469
Assessed Land Value psf of Land Area (1)	$142	$170	$170
Total Assessed Value psf of Land (1)	$580	$364	$778
Floor Area	263,639	97,162	159,860
Assessed Improvement Value psf of Improvements (1)	$155	$96	$154
Total Assessed Value psf of Improvements (1)	$206	$180	$197
Land Value per Acre ($million)	$6.2	$7.4	$7.4
FSR	2.8	2.0	4.0

	Richmond		
Description	Major Class A Office Building	Class A Office Building	Class A Office Building
Floor Area	112,867	109,374	100,565
2007 Assessment (1)	$26,885,000	$20,026,000	$18,947,000
2007 Municipal Tax Rate	$9.05151	$9.05151	$9.05151
Estimated 2007 Taxes	$243,350	$181,266	$171,499
2007 Taxes per Square Foot of Floor Area	$2.16	$1.66	$1.71
Estimated Total Current Occupancy Costs psf	$25	$27	$26
2007 Assessed Improvements Value	$457,000	$11,275,000	$13,952,000
2007 Assessed Land Value	$26,428,000	$8,751,000	$4,995,000
Total 2007 Assessed Value	$26,885,000	$20,026,000	$18,947,000
Land Area	194,277	58,806	39,030
Assessed Land Value psf of Land Area (1)	$136	$149	$128
Total Assessed Value psf of Land (1)	$138	$341	$485
Floor Area	112,867	109,374	100,565
Assessed Improvement Value psf of Improvements (1)	$4	$103	$139
Total Assessed Value psf of Improvements (1)	$238	$183	$188
Land Value per Acre ($million)	$5.9	$6.5	$5.6
FSR	0.6	1.9	2.6

Office Properties Outside of Downtown and Town Centre Locations

	Vancouver			
Description	Major Suburban Office Building	Office Park Building	Office Building	Office Building
Floor Area	246,960	134,452	35,930	151,136
2007 Assessment (1)	$27,985,667	$16,351,000	$4,510,000	$33,226,333
2007 Municipal Tax Rate	$13.347540	$13.347540	$13.347540	$13.347540
Estimated 2007 Taxes	$373,540	$218,246	$60,197	$443,490
2007 Taxes per Square Foot of Floor Area	$1.51255	$1.62322	$1.67541	$2.93438
Estimated Total Current Occupancy Costs Per Square Foot	$24	$25 to $30	$25 to $30	$25 to $30
2007 Assessed Improvements Value	$14,217,000	$9,292,000	$1,518,000	$29,089,000
2007 Assessed Land Value	$15,982,000	$8,066,000	$3,192,000	$4,965,000
2007 Average Assessed Land Value (2)	$13,768,667	$7,059,000	$2,992,000	$4,137,333
Total 2007 Assessed Value	$30,199,000	$17,358,000	$4,710,000	$34,054,000
Total 2007 Averaged Assessed Value (1)	$27,985,667	$16,351,000	$4,510,000	$33,226,333
Land Area	77,537	213,523	12,635	99,304
Assessed Land Value psf of Land Area (1)	$178	$33	$237	$42
Total Assessed Value psf of Land (1)	$361	$77	$357	$335
Floor Area	246,960	134,452	35,930	151,136
Assessed Improvement Value psf of Improvements (1)	$58	$69	$42	$192
Total Assessed Value psf of Improvements (1)	$113	$122	$126	$220
Land Value per Acre ($million)	$7.7	$1.4	$10.3	$1.8
FSR	3.2	0.6	2.8	1.5

Notes: 1. 2007 Assessed Values for Vancouver are the Average Assessed Values for Tax Purposes
2. Average Assessed Land Value is only used in Vancouver

	Burnaby			
Description	Office Building	Office Park Building	Office Park Building	Office Park Building
Floor Area	215,500	121,408	90,015	80,931
2007 Assessment (1)	$24,734,000	$15,905,000	$18,497,000	$14,880,000
2007 Municipal Tax Rate	$10.66010	$10.66010	$10.66010	$10.66010
Estimated 2007 Taxes	$263,667	$169,549	$197,180	$158,622
2007 Taxes per Square Foot of Floor Area	$1.22351	$1.39652	$2.19052	$1.95997
Estimated Total Current Occupancy Costs Per Square Foot	$27	$26	$30	$25 to $30
2007 Assessed Improvements Value	$14,518,000	$11,448,000	$13,366,000	$12,718,000
2007 Assessed Land Value	$10,216,000	$4,457,000	$5,131,000	$2,162,000
Total 2007 Assessed Value	$24,734,000	$15,905,000	$18,497,000	$14,880,000
Land Area	222,520	139,392	354,840	94,138
Assessed Land Value psf of Land Area (1)	$46	$32	$14	$23
Total Assessed Value psf of Land (1)	$111	$114	$52	$158
Floor Area	215,500	121,408	90,015	80,931
Assessed Improvement Value psf of Improvements (1)	$67	$94	$148	$157
Total Assessed Value psf of Improvements (1)	$115	$131	$205	$184
Land Value per Acre ($million)	$2.0	$1.4	$0.6	$1.0
FSR	1.0	0.9	0.3	0.9

	Richmond		
Description	Office Park Building	Office Park Building	Office Park Building
Floor Area	60,408	83,350	45,288
2007 Assessment (1)	$7,276,000	$15,323,000	$5,284,800
2007 Municipal Tax Rate	$9.05151	$9.05151	$9.05151
Estimated 2007 Taxes	$65,859	$138,696	$47,835
2007 Taxes per Square Foot of Floor Area	$1.09023	$1.66402	$1.05625
Estimated Total Current Occupancy Costs Per Square Foot	$23	$26	$25 to $30
2007 Assessed Improvements Value	$5,065,000	$11,088,000	$3,973,000
2007 Assessed Land Value	$2,211,000	$4,235,000	$1,311,000
Total 2007 Assessed Value	$7,276,000	$15,323,000	$5,284,000
Land Area	87,555	167,706	76,230
Assessed Land Value psf of Land Area (1)	$25	$25	$17
Total Assessed Value psf of Land (1)	$83	$91	$69
Floor Area	60,408	83,350	45,288
Assessed Improvement Value psf of Improvements (1)	$84	$133	$88
Total Assessed Value psf of Improvements (1)	$120	$184	$117
Land Value per Acre ($million)	$1.1	$1.1	$0.7
FSR	0.7	0.5	0.6

Industrial Properties

	Vancouver		
Description	SE Vancouver Industrial Building	SE Vancouver Industrial Building	Vancouver Industrial Building
Floor Area	117,300	175,928	66,513
2007 Assessment (1)	$7,322,333	$9,686,333	$4,257,000
2007 Municipal Tax Rate	$13.347540	$13.347540	$13.347540
Estimated 2007 Taxes	$97,735	$129,289	$56,820
2007 Taxes per Square Foot of Floor Area	$0.83321	$0.73490	$0.85428
Estimated Total Current Occupancy Costs Per Square Foot	$10.00 to $11.00	$10.00 to $11.00	$10.31
2007 Assessed Improvements Value	$7,566,000	$1,255,000	$1,355,000
2007 Assessed Land Value	$698,000	$9,630,000	$2,902,000
2007 Average Assessed Land Value (2)	$6,624,333	$8,431,333	$2,902,000
Total 2007 Assessed Value	$8,264,000	$10,885,000	$4,257,000
Total 2007 Averaged Assessed Value (1)	$7,322,333	$9,686,333	$4,257,000
Land Area	212,137	289,674	125,888
Assessed Land Value psf of Land Area (1)	$31	$29	$23
Total Assessed Value psf of Land (1)	$35	$33	$34
Floor Area	117,300	175,928	66,513
Assessed Improvement Value psf of Improvements (1)	$65	$7	$20
Total Assessed Value psf of Improvements (1)	$62	$55	$64
Land Value per Acre ($million)	$1.4	$1.3	$1.0
FSR	0.6	0.6	0.5

Note: 1. 2007 Assessed Values for Vancouver are the Average Assessed Values for Tax Purposes
2. Average Assessed Land Value is only used in Vancouver

	Burnaby		
Description	Industrial Building	Industrial Building	Industrial Building
Floor Area	62,188	31,880	34,322
2007 Assessment (1)	$4,502,000	$1,937,000	$2,365,000
2007 Municipal Tax Rate	$10.66010	$10.66010	$10.66010
Estimated 2007 Taxes	$47,992	$20,649	$25,211
2007 Taxes per Square Foot of Floor Area	$0.77172	$0.64770	$0.73455
Estimated Total Current Occupancy Costs Per Square Foot	$9.78	$9.15	$9.00 to $10.00
2007 Assessed Improvements Value	$1,781,000	$1,382,000	$604,000
2007 Assessed Land Value	$2,721,000	$555,000	$1,761,000
Total 2007 Assessed Value	$4,502,000	$1,937,000	$2,365,000
Land Area	207,781	34,412	32,019
Assessed Land Value psf of Land Area (1)	$13	$16	$55
Total Assessed Value psf of Land (1)	$22	$56	$74
Floor Area	62,188	31,880	34,322
Assessed Improvement Value psf of Improvements (1)	$29	$43	$18
Total Assessed Value psf of Improvements (1)	$72	$61	$69
Land Value per Acre ($million)	$0.6	$0.7	$2.4
FSR	0.3	0.9	1.1

	Richmond		
Description	Industrial Building	Industrial Building	Industrial Building
Floor Area	94,334	48,200	165,753
2007 Assessment (1)	$7,943,000	$3,563,000	$9,822,000
2007 Municipal Tax Rate	$9.05151	$11.20504	$9.05151
Estimated 2007 Taxes	$71,896	$39,924	$88,904
2007 Taxes per Square Foot of Floor Area	$0.76214	$0.82829	$0.53636
Estimated Total Current Occupancy Costs Per Square Foot	$9.06	$9.51	$9.25
2007 Assessed Improvements Value	$943,000	$1,954,000	$1,381,000
2007 Assessed Land Value	$7,000,000	$1,609,000	$8,441,000
2007 Average Assessed Land Value (2)	n/a	n/a	n/a
Total 2007 Assessed Value	$7,943,000	$3,563,000	$9,822,000
Total 2007 Averaged Assessed Value (1)	n/a	n/a	n/a
Land Area	174,240	80,150	296,208
Assessed Land Value psf of Land Area (1)	$40	$20	$28
Total Assessed Value psf of Land (1)	$46	$44	$33
Floor Area	94,334	48,200	165,753
Assessed Improvement Value psf of Improvements (1)	$10	$41	$8
Total Assessed Value psf of Improvements (1)	$84	$74	$59
Land Value per Acre ($million)	$1.7	$0.9	$1.2
FSR	0.5	0.6	0.6

Single Storey Retail Buildings – Vancouver Properties

Description	Downtown Retail Store	Downtown Retail/Service Building	West Side Retail	West Side Retail	West Side Retail
Floor Area	16,422	13,198	14,006	26,951	27,849
2007 Assessment (1)	$3,366,400	$7,162,300	$6,113,500	$8,106,667	$6,280,667
2007 Municipal Tax Rate	$13.347540	$13.347540	$13.347540	$13.347540	$13.347540
Estimated 2007 Taxes	$44,933	$95,599	$81,600	$108,204	$83,831
2007 Taxes per Square Foot of Floor Area	$2.73616	$7.24345	$5.82609	$4.01484	$3.01021
2007 Assessed Improvements Value	$105,400	$81,300	$53,500	$3,062,000	$207,000
2007 Assessed Land Value	$3,763,000	$9,750,000	$6,696,000	$6,054,000	$5,658,000
2007 Average Assessed Land Value (2)	$3,261,000	$7,081,000	$6,060,000	$5,044,667	$6,073,667
Total 2007 Assessed Value	$3,868,400	$9,831,300	$6,749,500	$9,116,000	$5,865,000
Total 2007 Averaged Assessed Value (1)	$3,366,400	$7,162,300	$6,113,500	$8,106,667	$6,280,667
Land Area	9,659	15,000	27,459	84,085	78,588
Assessed Land Value psf of Land Area (1)	$337.61	$472.07	$220.69	$59.99	$77.28
Total Assessed Value psf of Land (1)	$348.52	$477.49	$222.64	$96.41	$79.92
Floor Area	16,422	13,198	14,006	26,951	27,849
Assessed Improvement Value psf of Improvements (1)	$6.42	$6.16	$3.82	$113.61	$7.43
Total Assessed Value psf of Improvements (1)	$204.99	$542.68	$436.49	$300.79	$225.53
Land Value per Acre ($million)	$14.7	$20.5	$9.6	$2.6	$3.4
FSR	1.7	0.9	0.5	0.3	0.4

Notes: 1. 2007 Assessed Values for Vancouver are the Average Assessed Values for Tax Purposes.
2. Average Assessed Land Value is only used in Vancouver

Vancouver continued

Description	Single Level Commercial	Single Level Retail Store	Single Level Retail Store	Single Level Retail Store	Single Level Retail Store
Floor Area	2,766	1,566	2,563	4,425	2,145
2007 Assessment (1)	$518,000	$406,000	$758,667	$726,433	$504,333
2007 Municipal Tax Rate	$13.347540	$13.347540	$13.347540	$13.347540	$13.347540
Estimated 2007 Taxes	$6,914	$5,419	$10,126	$9,696	$6,732
2007 Taxes per Square Foot of Floor Area	$2.49965	$3.46047	$3.95097	$2.19121	$3.13828
2007 Assessed Improvements Value	$0	$0	$0	$89,100	$146,000
2007 Assessed Land Value	$641,000	$500,000	$954,000	$801,000	$415,000
2007 Average Assessed Land Value (2)	$518,000	$406,000	$758,667	$637,333	$358,333
Total 2007 Assessed Value	$641,000	$500,000	$954,000	$890,100	$561,000
Total 2007 Averaged Assessed Value (1)	$518,000	$406,000	$758,667	$726,433	$504,333
Land Area	3,890	3,124	5,808	4,700	3,778
Assessed Land Value psf of Land Area (1)	$133.18	$129.96	$130.62	$135.60	$94.84
Total Assessed Value psf of Land (1)	$133.18	$129.96	$130.62	$154.56	$133.48
Floor Area	2,766	1,566	2,563	4,425	2,145
Assessed Improvement Value psf of Improvements (1)	$0.00	$0.00	$0.00	$20.14	$68.07
Total Assessed Value psf of Improvements (1)	$187.27	$259.26	$296.01	$164.17	$235.12
Land Value per Acre ($million)	$5.8	$5.6	$5.7	$5.9	$4.1
FSR	0.7	0.5	0.4	0.9	0.6

Single Storey Retail Buildings – Burnaby Properties

Description	Single Level Retail Store	A & B Sound	Single Level Retail Store	Single Level Retail Store
Floor Area	1,703	5,768	2,100	3,983
2007 Assessment	$614,700	$1,536,000	$1,031,000	$1,216,000
2007 Municipal Tax Rate	$10.66010	$10.66010	$10.66010	$10.66010
Estimated 2007 Taxes	$6,553	$16,374	$10,991	$12,963
2007 Taxes per Square Foot of Floor Area	$3.84778	$2.83875	$5.23360	$3.25450
2007 Assessed Improvements Value	$5,700	$488,000	$177,000	$317,000
2007 Assessed Land Value	$609,000	$1,048,000	$854,000	$899,000
2007 Average Assessed Land Value (2)	n/a	n/a	n/a	n/a
Total 2007 Assessed Value	$614,700	$1,536,000	$1,031,000	$1,216,000
Total 2007 Averaged Assessed Value (1)	n/a	n/a	n/a	n/a
Land Area	3,585	5,872	5,027	5,294
Assessed Land Value psf of Land Area (1)	$169.87	$178.47	$169.88	$169.81
Total Assessed Value psf of Land (1)	$171.46	$261.58	$205.09	$229.69
Floor Area	1,703	5,768	2,100	3,983
Assessed Improvement Value psf of Improvements (1)	$3.35	$84.60	$84.29	$79.59
Total Assessed Value psf of Improvements (1)	$360.95	$266.30	$490.95	$305.30
Land Value per Acre ($million)	$7.4	$7.8	$7.4	$7.4
Total Assessed Value per Sq ft	$361	$266	$491	$305
FSR	0.5	1.0	0.4	0.8

Burnaby continued

Description	Single Level Retail	Single Level Retail	Single Level Commercial
Floor Area	2,845	1,918	6,339
2007 Assessment	$563,900	$595,200	$1,944,900
2007 Municipal Tax Rate	$10.66010	$10.66010	$10.66010
Estimated 2007 Taxes	$6,011	$6,345	$20,733
2007 Taxes per Square Foot of Floor Area	$2.11291	$3.30808	$3.27068
2007 Assessed Improvements Value	$28,900	$9,200	$55,900
2007 Assessed Land Value	$535,000	$586,000	$1,889,000
2007 Average Assessed Land Value (2)	n/a	n/a	n/a
Total 2007 Assessed Value	$563,900	$595,200	$1,944,900
Total 2007 Averaged Assessed Value (1)	n/a	n/a	n/a
Land Area	3,392	3,713	11,388
Assessed Land Value psf of Land Area (1)	$157.72	$157.82	$165.88
Total Assessed Value psf of Land (1)	$166.24	$160.30	$170.79
Floor Area	2,845	1,918	6,339
Assessed Improvement Value psf of Improvements (1)	$10.16	$4.80	$8.82
Total Assessed Value psf of Improvements (1)	$198.21	$310.32	$306.81
Land Value per Acre ($million)	$6.9	$6.9	$7.2
Total Assessed Value per Sq ft	$198	$310	$307
FSR	0.8	0.5	0.6

Single Storey Retail Buildings – Richmond Properties

	Richmond		
Description	Single Level Retail Store	Single Level Retail Store	Single Level Retail Store
Floor Area	5,316	3,880	5,977
2007 Assessment	$1,322,800	$1,434,000	$1,417,900
2007 Municipal Tax Rate	$9.05151	$9.05151	$9.05151
Estimated 2007 Taxes	$11,973	$12,980	$12,834
2007 Taxes per Square Foot of Floor Area	$2.25232	$3.34533	$2.14725
2007 Assessed Improvements Value	$19,800	$20,000	$17,900
2007 Assessed Land Value	$1,303,000	$1,414,000	$1,400,000
2007 Average Assessed Land Value (2)	n/a	n/a	n/a
Total 2007 Assessed Value	$1,322,800	$1,434,000	$1,417,900
Total 2007 Averaged Assessed Value (1)	n/a	n/a	n/a
Land Area	8,145	8,842	8,755
Assessed Land Value psf of Land Area (1)	$159.98	$159.92	$159.91
Total Assessed Value psf of Land (1)	$162.41	$162.18	$161.95
Floor Area	5,316	3,880	5,977
Assessed Improvement Value psf of Improvements (1)	$3.72	$5.15	$2.99
Total Assessed Value psf of Improvements (1)	$248.83	$369.59	$237.23
Land Value per Acre ($million)	$7.0	$6.9	$6.9
FSR	0.7	0.4	0.7

Major Retailer with a Store in Each Municipality – Example 1

Municipality	Vancouver	Burnaby	Richmond
Floor Area	120,341	129,354	104,459
2007 Assessment (1)	$15,822,000	$17,755,000	$16,267,000
2007 Municipal Tax Rate	$13.347540	$10.66010	$9.05151
Estimated 2007 Taxes	$211,185	$189,270	$147,241
2007 Taxes per Square Foot of Floor Area	$1.75489	$1.46319	$1.40956
2007 Assessed Improvements Value	$1,431,000	$7,136,000	$970,000
2007 Assessed Land Value	$15,372,000	$10,619,000	$15,297,000
2007 Average Assessed Land Value (2)	$14,391,000	n/a	n/a
Total 2007 Assessed Value	$16,803,000	$17,755,000	$16,267,000
Total 2007 Averaged Assessed Value (1)	$15,822,000	n/a	n/a
Land Area	414,256	490,921	382,457
Assessed Land Value psf of Land Area (1)	$35	$22	$40
Total Assessed Value psf of Land (1)	$38	$36	$43
Floor Area	120,341	129,354	104,459
Assessed Improvement Value psf of Improvements (1)	$12	$55	$9
Total Assessed Value psf of Improvements (1)	$131	$137	$156
Land Value per Acre ($million)	$1.5	$0.9	$1.7
Total Assessed Value per Sq ft	$131	$137	$156
FSR	0.3	0.3	0.3

Notes: 1. 2007 Assessed Values for Vancouver are the Average Assessed Values for Tax Purposes.
2. Average Assessed Land Value is only used in Vancouver

Major Retailer with a Store in Each Municipality – Example 2

Municipality	Vancouver	Vancouver	Burnaby	Richmond
Description	Store and Warehouse	Store	Store	Store (in Shopping Ctr)
Floor Area	23,408	6,315	6,376	56,421
2007 Assessment (1)	$2,305,000	$2,296,033	$1,544,000	$8,455,000
2007 Municipal Tax Rate	$13.347540	$13.347540	$10.66010	$9.05151
Estimated 2007 Taxes	$30,766	$30,646	$16,459	$76,531
2007 Taxes per Square Foot of Floor Area	$1.31434	$4.85295	$2.58143	$1.35642
2007 Assessed Improvements Value	$614,000	$27,700	$306,000	$745,000
2007 Assessed Land Value	$2,071,000	$2,710,000	$1,238,000	$7,710,000
2007 Average Assessed Land Value (2)	$1,691,000	$2,268,333	n/a	n/a
Total 2007 Assessed Value	$2,685,000	$2,737,700	$1,544,000	$8,455,000
Total 2007 Averaged Assessed Value (1)	$2,305,000	$2,296,033	n/a	n/a
Land Area	34,848	11,812	12,383	128,502
Assessed Land Value psf of Land Area (1)	$49	$192	$100	$60
Total Assessed Value psf of Land (1)	$66	$194	$125	$66
Floor Area	23,408	6,315	6,376	56,421
Assessed Improvement Value psf of Improvements (1)	$26	$4	$48	$13
Total Assessed Value psf of Improvements (1)	$98	$364	$242	$150
Land Value per Acre ($million)	$2.1	$8.3	$4.3	$2.6
FSR	0.7	0.5	0.5	0.4

Notes: 1. 2007 Assessed Values for Vancouver are the Average Assessed Values for Tax Purposes.
2. Average Assessed Land Value is only used in Vancouver

Vacancy and Rental Rates over time in Vancouver, Richmond and Burnaby

This sub-section provides additional comparative information on rental rates and vacancy rates over time as discussed in Section 5.7 of the report. The information is provided for light industrial, office and retail properties. The information is taken from published reports prepared by two major brokerage firms: Colliers and CBRE.

Industrial Property

COLLIERS

Quarter	YEAR	Vancouver			Burnaby			Richmond		
		Occupied Space Million per Sq.Ft.	Vacancy Rate	Lease Rate ($) per SqFt	Occupied Space Million per Sq.Ft.	Vacancy Rate	Lease Rate ($) per SqFt	Occupied Space Million per Sq.Ft.	Vacancy Rate	Lease Rate ($) per SqFt
QM	1998	21.8	6.7%	4.50 – 9.25	20.6	3.6%	4.50 – 7.50	21.8	5.7%	4.25 – 7.00
Q4	1999	19.2	3.3%	4.50 – 9.25	21.2	3.8%	4.50 – 7.75	23.0	3.3%	4.25 – 6.75
QM	2000	19.2	3.7%	4.75 – 9.25	21.5	2.6%	4.75 – 7.75	23.5	1.9%	4.75 – 9.50
QE	2001	19.2	4.2%	4.75 – 9.25	21.9	3.2%	4.75 – 7.00	23.5	3.4%	4.75 – 7.75
Q3	2002	19.3	3.5%	N/A	21.7	3.9%	N/A	23.9	2.8%	N/A
Q4	2003	19.8	1.5%	4.75 – 9.25	22.5	1.9%	4.25 – 8.50	25.4	1.8%	4.50 – 7.75
Q4	2004	19.9	1.9%	5.25 – 12.00	23.0	1.2%	4.75 – 8.50	26.1	0.9%	4.75 – 8.00
Q4	2005	20.0	1.9%	N/A	23.4	1.3%	N/A	26.5	2.6%	N/A
Q3	2006	20.3	0.8%	N/A	23.8	0.7%	N/A	27.7	0.9%	N/A
Q1	2007	20.4	0.5%	N/A	24.2	1.0%	N/A	28.4	1.1%	7.25 – 8.00

QM = Quarter Middle QE = Quarter End

CBRE

Quarter	YEAR	Vancouver			Burnaby			Richmond		
		Absorption (Million)	Vacancy Rate	Lease Rate ($) per Square Foot	Absorption (Sq. Ft.)	Vacancy Rate	Lease Rate ($) per Square Foot	Absorption (Million)	Vacancy Rate	Lease Rate ($) per Square Foot
N/A	1998	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Q4	1999	67,474	4.5%	N/A	213,379	3.3%	N/A	429,933	2.6%	N/A
N/A	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	2001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	2002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Q4	2003	188,671	2.1%	5.40	226,825	4.4%	7.34	88,193	3.6%	6.93
Q4	2004	-18,773	1.6%	N/A	7,905	2.4%	N/A	214,220	1.4%	N/A
Q4	2005	101,015	0.9%	N/A	60,968	1.7%	N/A	181,193	1.7%	N/A
Q4	2006	63,786	1.2%	N/A	81,476	1.9%	N/A	441,794	2.0%	N/A
N/A	2007	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Office Property

COLLIERS

Quarter	YEAR	(Downtown) Vancouver			Burnaby			Richmond		
		Occupied Space Million per Sq.Ft.	Vacancy Rate	Lease Rate ($) per Square Foot	Occupied Space Million per Sq.Ft.	Vacancy Rate	Lease Rate ($) per Square Foot	Occupied Space Million per Sq.Ft.	Vacancy Rate	Lease Rate ($) per Square Foot
QM	1998	6.1	5.1%	18.50	2.8	2.4%	15.50	0.6	10.8%	14.00
QW	1999	6.2	5.1%	16 - 26	3.6	2.0%	17 - 20	0.7	17.5%	15 - 17
QM	2000	N/A	3.6%	18 - 28	N/A	1.7%	17 - 21	N/A	11.5%	15 - 17
Q4	2001	N/A	6.1%	18 - 28	N/A	10.5%	15 - 20	N/A	9.6%	14 - 16
Q3	2002	N/A	7.5%	N/A	N/A	13.8%	N/A	N/A	11.3%	N/A
Q4	2003	N/A	12.9%	16 - 28	N/A	13.8%	15 - 20	N/A	22.4%	14 - 16
Q4	2004	2.9	7.7%	11 - 17.0	4.6	7.9%	13 - 16.75	1.2	16.3%	12 - 16.0
Q4	2005	6.4	5.6%	N/A	4.5	5.0%	N/A	1.5	10.6%	N/A
Q1	2006	6.5	4.0%	N/A	4.5	3.5%	N/A	1.5	10.2%	N/A
Q1	2007	4.6	2.8%	N/A	4.6	3.4%	N/A	1.4	13.5%	N/A

QM = Quarter Middle QW = Quarter Winter

CBRE

Quarter	YEAR	(Downtown) Vancouver			Burnaby			Richmond		
		Net Absorption (Sq.Ft)	Vacancy Rate	Lease Rate ($) per Square Foot	Net Absorption (Sq.Ft)	Vacancy Rate	Lease Rate ($) per Square Foot	Net Absorption (Sq.Ft)	Vacancy Rate	Lease Rate ($) per Square Foot
N/A	1998	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Q2	2000	168,817	2.2%	20.89	3,769	9.1%	15.18	27,901	8.2%	13.61
N/A	2001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	2002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Q4	2003	46,794	12.5%	19.2	80,410	25.2%	15.52	44,665	24.6%	13.65
Q2	2004	71,236	11.0%	18.49	37,457	23.9%	15.71	35,703	25.1%	13.65
Q4	2005	-32,003	6.3%	21.17	6,802	9.8%	15.54	-1,061	21.5%	13.55
Q4	2006	29,272	3.1%	23.13	25,766	6.8%	17.48	-48,185	17.1%	13.95
Q1	2007	60,732	2.3%	23.9	-17,274	15.1%	16.16	-7,637	17.8%	13.96

Retail Property Shopping Centres

COLLIERS

Quarter	YEAR	Vancouver		Burnaby		Richmond	
		Vacancy Rate	CRU Lease Rate ($) per Sq. Ft	Vacancy Rate	CRU Lease Rate ($) per Sq. Ft	Vacancy Rate	CRU Lease Rate ($) per Sq. Ft
QF	1998	1.80%	N/A	1.50%	N/A	1.80%	N/A
N/A	1999	N/A	N/A	N/A	N/A	N/A	N/A
QS	2000	0.90%	N/A	2.50%	N/A	3.30%	N/A
N/A	2001	N/A	N/A	N/A	N/A	N/A	N/A
QW	2002	1.11%	22 - 30	4.83%	20 - 28	1.13%	18 - 28
QF	2003	2.07%	22 - 35	3.97%	22 - 35	1.31%	22 - 30
Q2	2004	4.42%	22 - 35	5.27%	22 - 35	1.20%	22 - 30
QM	2005	4.89%	24 - 35	5.58%	18 - 35	3.40%	22 - 32
N/A	2006	N/A	N/A	N/A	N/A	N/A	N/A
Q1	2007	1.58%	30 - 45	2.37%	26 - 28	0.80%	25 - 35

QF = Quarter Fall QM = Quarter Middle QS = Quarter Summer QW = Quarter Winter

CBRE

Quarter	YEAR	Vancouver		Burnaby		Richmond	
		Vacancy Rate	Absorption (Sq. Ft)	Vacancy Rate	Absorption (Sq. Ft.)	Vacancy Rate	Absorption (Sq. Ft.)
N/A	1998	N/A	N/A	N/A	N/A	N/A	N/A
Q4	1999	2.3%	264,428	3.8%	-156,790	8.9%	-176,385
N/A	2000	N/A	N/A	N/A	N/A	N/A	N/A
N/A	2001	N/A	N/A	N/A	N/A	N/A	N/A
N/A	2002	N/A	N/A	N/A	N/A	N/A	N/A
Q4	2003	3.4%	N/A	12.0%	N/A	2.2%	N/A
Q4	2004	3.4%	N/A	3.5%	N/A	1.8%	N/A
Q4	2005	2.5%	N/A	1.1%	N/A	0.8%	N/A
Q4	2006	2.6%	N/A	4.3%	N/A	1.9%	N/A
N/A	2007	N/A	N/A	N/A	N/A	N/A	N/A

APPENDIX D: VOLATILITY

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Class 1										
Net land	-2.1%	-9.1%	-3.2%	1.4%	0.8%	9.8%	10.4%	20.7%	17.3%	31.5%
Net improvements	2.5%	-0.2%	0.2%	0.5%	5.1%	6.7%	8.9%	14.4%	1.6%	11.5%
Total net value**	-0.9%	-6.7%	-2.2%	1.1%	2.1%	8.8%	10.0%	18.8%	12.6%	26.1%
Excluding new construction										
Net improvements	-2.3%	-3.3%	-3.6%	-2.3%	1.3%	1.5%	2.0%	5.3%	-3.3%	1.5%
Class 6										
Net land	0.4%	-2.0%	-1.6%	-0.3%	-0.1%	5.7%	9.7%	11.6%	17.1%	29.4%
Net improvements	8.8%	2.9%	2.6%	5.6%	-0.3%	-3.9%	-3.7%	3.9%	4.6%	14.5%
Total net value**	3.6%	0.0%	0.2%	2.3%	-0.2%	1.5%	4.1%	8.5%	12.3%	24.1%
Excluding new construction										
Net improvements	3.4%	-1.5%	-1.5%	-1.0%	-3.2%	-8.6%	-8.4%	-1.4%	-1.6%	-0.6%

Table 39: Annual Percentage Change in Assessed Values
(including only properties that are in the sample for consecutive years)

Table 39 provides the annual year-over-year changes for land, improvements and total assessed values for the entire study period. Only properties that are in the sample for the current and prior year are used in the analysis (our base sample). We also report the annual year-over-year percentage changes for net improvements exclusive of new construction. We use a benchmark of 20% increase in net improvements to filter out new (major) construction.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	-0.7%	-5.3%	-0.6%	4.7%	4.4%	6.5%	11.8%	15.3%	15.5%	29.3%
KITSILANO	2.3%	-4.4%	1.1%	1.5%	3.4%	10.1%	10.8%	16.4%	12.8%	30.7%
DUNBAR	-6.2%	-9.1%	2.4%	3.5%	2.1%	10.1%	7.4%	19.6%	12.3%	27.8%
ARBUTUS	-5.6%	-14.2%	-3.6%	3.1%	3.9%	8.8%	7.9%	17.0%	16.7%	24.2%
KERRISDALE	-2.7%	-9.9%	-3.0%	-0.2%	3.0%	7.9%	9.1%	17.2%	13.7%	23.7%
SOUTHLANDS	-2.1%	-9.6%	-4.2%	0.4%	2.7%	7.6%	8.0%	11.2%	15.1%	23.8%
FAIRVIEW	2.1%	-6.1%	-0.5%	-0.5%	1.9%	7.7%	12.2%	19.5%	11.6%	21.6%
SHAUGHNESSEY	-3.7%	-10.9%	-5.3%	4.3%	1.6%	3.1%	9.5%	16.4%	13.6%	21.3%
CAMBIE	-4.2%	-8.4%	-1.5%	0.9%	1.2%	9.9%	6.0%	17.1%	15.7%	25.1%
SOUTH GRANVILLE	-8.3%	-16.3%	-7.2%	1.6%	0.2%	6.4%	6.0%	16.8%	9.6%	24.3%
OAKRIDGE	-4.9%	-12.8%	-4.8%	2.4%	-1.3%	6.2%	6.8%	12.3%	12.1%	23.0%
MARPOLE	-4.0%	-10.2%	-4.3%	2.0%	-2.3%	9.8%	8.7%	16.4%	9.7%	23.2%
MT PLEASANT	3.7%	-3.0%	-2.6%	-0.1%	1.2%	5.9%	9.9%	23.4%	17.8%	28.7%
GRANDVIEW	1.0%	-3.6%	-1.7%	0.1%	-0.1%	6.0%	8.8%	23.6%	13.7%	28.3%
CEDAR COTTAGE	3.4%	-3.7%	-3.3%	-0.4%	0.8%	8.5%	7.9%	27.7%	11.7%	30.6%
MAIN/FRASER	0.6%	-4.5%	-3.5%	0.7%	1.3%	7.0%	9.0%	28.6%	11.5%	24.2%
SOUTH VANCOUVER	1.4%	-5.8%	-2.2%	1.7%	0.1%	10.2%	3.9%	23.7%	10.2%	24.7%
MARINE DRIVE	-0.3%	-6.6%	-3.1%	-2.4%	-0.4%	5.7%	6.6%	23.8%	5.7%	23.3%
KNIGHT	1.6%	-5.1%	-3.8%	0.8%	1.3%	8.5%	12.0%	15.4%	11.8%	24.1%
HASTINGS EAST	0.6%	-3.3%	-2.2%	0.6%	0.6%	4.2%	15.5%	20.9%	10.8%	28.8%
RENFREW	0.4%	-4.6%	-4.0%	-0.2%	0.7%	4.9%	14.5%	19.5%	9.3%	24.6%
RENFREW HEIGHTS	-0.6%	-3.2%	-5.7%	1.0%	1.2%	7.5%	14.6%	17.6%	8.9%	25.0%
COLLINGWOOD	0.1%	-5.5%	-2.4%	-0.6%	0.4%	9.9%	7.8%	20.4%	13.5%	28.0%
KILLARNEY	-2.0%	-7.4%	-3.3%	-0.8%	2.9%	10.9%	8.9%	16.5%	9.8%	23.6%
FRASERVIEW	-2.3%	-6.7%	-3.8%	-0.9%	0.8%	10.4%	7.5%	19.8%	6.7%	21.7%
DOWNTOWN	17.1%	4.8%	8.1%	3.5%	6.3%	13.8%	10.6%	20.9%	14.0%	29.8%
WEST END	1.6%	-0.6%	-0.7%	-0.1%	4.3%	9.7%	10.2%	18.0%	10.8%	21.9%
HARBOUR	70.0%	6.8%	-1.2%	6.2%	16.0%	30.9%	22.5%	15.5%	15.6%	32.0%
DOWNTOWN SOUTH	5.1%	-2.1%	-3.3%	-1.2%	3.4%	12.6%	16.6%	22.1%	15.0%	23.8%
FALSE CREEK NORTH	2.8%	-4.3%	-2.8%	0.3%	6.5%	20.6%	17.6%	22.4%	16.8%	34.3%

Table 40: Class 1 Annual Percentage Changes in Total Assessed Values by Neighbourhood

Table 40 is based on the base sample where only properties that are in the sample for the current and prior year are used in the analysis.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	-5.7%	9.9%	-7.0%	-2.5%	6.6%	4.0%	12.4%	-0.4%	10.9%	20.5%
KITSILANO	0.2%	1.7%	-0.5%	1.3%	-0.3%	2.3%	24.2%	6.4%	5.6%	28.4%
DUNBAR	1.1%	6.8%	-4.3%	-2.7%	-2.1%	-6.0%	23.2%	10.4%	10.5%	13.0%
ARBUTUS	0.7%	-1.9%	3.1%	0.3%	-0.3%	0.1%	6.2%	1.1%	17.2%	17.5%
KERRISDALE	0.7%	-1.1%	-4.9%	1.4%	-2.8%	0.5%	9.9%	7.3%	5.8%	20.3%
SOUTHLANDS	0.1%	4.0%	-6.9%	1.2%	-2.7%	-8.1%	-0.3%	15.4%	3.2%	22.5%
FAIRVIEW	3.7%	1.1%	0.6%	0.9%	1.4%	0.1%	5.7%	15.8%	6.9%	24.1%
SHAUGHNESSEY	3.5%	-1.1%	7.0%	-1.5%	-0.4%	-0.1%	6.5%	1.3%	9.2%	21.4%
CAMBIE	-0.1%	-3.2%	0.3%	-0.7%	-1.5%	1.0%	29.9%	-5.1%	1.9%	18.3%
SOUTH GRANVILLE	-0.4%	-0.3%	3.1%	0.6%	0.8%	-1.0%	12.2%	6.8%	2.0%	25.6%
OAKRIDGE	3.8%	0.9%	5.9%	2.5%	-2.1%	1.2%	9.0%	5.8%	6.2%	15.2%
MARPOLE	2.2%	-1.8%	1.6%	0.2%	-0.7%	-0.1%	8.4%	2.7%	5.5%	30.1%
MT PLEASANT	-0.1%	0.8%	-1.3%	3.0%	0.4%	1.4%	1.9%	16.9%	21.7%	26.2%
GRANDVIEW	0.5%	-0.8%	-4.7%	-1.5%	-0.4%	2.3%	5.7%	5.5%	9.7%	28.6%
CEDAR COTTAGE	-0.8%	-1.2%	-2.9%	-7.1%	-1.1%	2.3%	6.1%	4.4%	14.1%	31.4%
MAIN/FRASER	-0.7%	-0.6%	-1.6%	-1.8%	-2.4%	-1.9%	2.2%	1.2%	20.7%	21.7%
SOUTH VANCOUVER	-0.8%	-1.5%	0.3%	-2.6%	-1.3%	7.3%	4.4%	5.4%	8.6%	19.3%
MARINE DRIVE	-0.4%	-0.3%	-5.1%	10.5%	2.7%	7.1%	3.6%	11.4%	9.5%	23.8%
KNIGHT	-2.1%	0.7%	2.9%	-7.1%	-2.0%	2.5%	-1.7%	2.7%	4.4%	27.7%
HASTINGS EAST	-0.6%	-0.1%	-0.2%	-4.7%	-0.6%	-1.8%	-2.0%	4.4%	9.9%	30.3%
RENFREW	1.6%	1.0%	-1.0%	8.0%	11.4%	-1.3%	2.3%	13.3%	7.3%	21.3%
RENFREW HEIGHTS	0.2%	-2.8%	-1.8%	-1.0%	-1.0%	1.9%	-2.9%	5.6%	13.4%	19.1%
COLLINGWOOD	0.1%	0.4%	-2.5%	-1.9%	-4.5%	0.1%	1.8%	3.7%	9.4%	26.0%
KILLARNEY	4.9%	-1.2%	1.2%	-0.7%	-2.3%	0.5%	0.7%	4.8%	10.7%	21.6%
FRASERVIEW	-0.7%	-1.2%	-0.4%	-1.6%	-3.5%	-0.2%	2.0%	1.3%	2.6%	23.7%
DOWNTOWN	5.5%	-0.3%	1.1%	2.6%	-0.8%	-0.3%	-1.0%	4.9%	13.0%	21.9%
WEST END	8.5%	-0.7%	3.6%	3.3%	-0.3%	-1.7%	1.3%	9.4%	11.0%	32.9%
HARBOUR	10.7%	-3.5%	0.7%	6.8%	-3.4%	7.8%	2.0%	4.4%	18.4%	16.8%
DOWNTOWN SOUTH	7.5%	1.3%	0.8%	4.5%	0.3%	10.5%	15.9%	17.2%	16.1%	30.7%
FALSE CREEK NORTH	-22.4%	0.4%	-9.1%	-19.8%	-0.5%	10.5%	9.8%	17.6%	21.9%	9.0%

Table 41: Class 6 Annual Percentage Changes in Total Assessed Values by Neighbourhood

Table 41 is based on the base sample where only properties that are in the sample for the current and prior year are used in the analysis.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	-1.4%	-6.1%	-1.9%	2.8%	3.4%	5.5%	8.0%	14.2%	13.7%	27.8%
KITSILANO	1.2%	-4.9%	-0.9%	0.1%	2.1%	9.3%	8.9%	15.4%	11.5%	24.2%
DUNBAR	-6.8%	-9.6%	0.9%	2.4%	0.2%	9.2%	6.5%	16.8%	11.5%	26.9%
ARBUTUS	-6.4%	-14.9%	-4.6%	0.7%	2.5%	7.8%	6.3%	13.1%	15.8%	23.0%
KERRISDALE	-3.5%	-10.4%	-3.7%	-0.8%	2.4%	7.3%	6.8%	14.3%	12.5%	22.3%
SOUTHLANDS	-3.3%	-10.3%	-4.9%	-0.4%	1.8%	6.6%	7.0%	9.8%	14.1%	22.3%
FAIRVIEW	1.2%	-6.5%	-2.3%	-1.0%	1.1%	7.0%	11.2%	18.1%	10.2%	20.0%
SHAUGHNESSEY	-5.3%	-12.4%	-6.3%	3.0%	0.7%	1.5%	7.7%	12.8%	12.3%	19.5%
CAMBIE	-5.3%	-9.2%	-3.1%	-1.3%	0.6%	8.3%	5.0%	15.0%	14.0%	24.4%
SOUTH GRANVILLE	-10.2%	-16.9%	-7.9%	0.6%	-0.4%	4.9%	4.8%	12.1%	8.1%	23.0%
OAKRIDGE	-5.3%	-14.1%	-5.1%	0.9%	-1.5%	5.8%	5.3%	10.5%	11.6%	22.5%
MARPOLE	-5.5%	-10.5%	-4.4%	1.7%	-2.7%	8.7%	6.8%	14.8%	8.9%	22.5%
MT PLEASANT	1.3%	-4.0%	-3.3%	-0.9%	-0.2%	4.9%	7.3%	19.7%	14.4%	25.1%
GRANDVIEW	0.2%	-4.5%	-2.3%	-0.3%	-1.1%	3.4%	6.7%	17.1%	12.2%	27.5%
CEDAR COTTAGE	1.3%	-4.4%	-4.4%	-1.1%	-0.8%	6.9%	6.7%	22.8%	9.1%	28.8%
MAIN/FRASER	-0.7%	-5.1%	-4.3%	-0.4%	-0.6%	5.8%	7.7%	24.0%	9.8%	23.4%
SOUTH VANCOUVER	0.5%	-6.3%	-2.8%	1.2%	-0.6%	9.1%	2.3%	19.1%	9.3%	23.5%
MARINE DRIVE	-0.3%	-7.2%	-6.0%	-2.5%	-2.2%	3.9%	6.4%	21.8%	5.7%	23.0%
KNIGHT	0.9%	-5.7%	-4.4%	0.3%	0.7%	7.8%	8.3%	14.1%	11.0%	22.4%
HASTINGS EAST	-0.2%	-3.6%	-3.5%	0.1%	0.2%	2.4%	13.8%	18.4%	9.8%	26.6%
RENFREW	-0.2%	-5.3%	-4.8%	-0.7%	0.0%	3.7%	9.5%	18.2%	8.6%	23.5%
RENFREW HEIGHTS	-1.3%	-3.7%	-6.3%	-0.1%	0.4%	6.2%	10.0%	15.9%	6.7%	23.8%
COLLINGWOOD	-0.9%	-6.1%	-2.9%	-1.1%	-0.2%	8.7%	5.5%	17.6%	11.4%	23.7%
KILLARNEY	-3.0%	-8.2%	-3.9%	-1.3%	1.6%	9.7%	8.1%	15.3%	7.1%	22.6%
FRASERVIEW	-2.8%	-7.2%	-4.1%	-1.4%	-0.2%	9.6%	6.3%	16.7%	6.1%	20.7%
DOWNTOWN	2.5%	-4.9%	-3.5%	-0.5%	0.8%	10.6%	9.9%	16.4%	9.1%	22.0%
WEST END	1.1%	-1.4%	-1.1%	-0.4%	3.2%	8.2%	9.0%	16.2%	10.1%	20.1%
HARBOUR	70.0%	-1.2%	-1.2%	2.9%	7.8%	14.9%	20.3%	13.4%	9.9%	30.6%
DOWNTOWN SOUTH	3.9%	-2.6%	-3.5%	-1.5%	1.9%	9.1%	12.2%	18.2%	11.1%	22.7%
FALSE CREEK NORTH	2.4%	-5.8%	-3.1%	0.3%	4.5%	13.5%	11.9%	18.3%	13.3%	21.8%
Total	**-2.1%**	**-7.5%**	**-3.4%**	**0.1%**	**1.0%**	**7.4%**	**7.9%**	**16.0%**	**11.0%**	**23.5%**

Table 42: Class 1 Annual Percentage Changes in Total Assessed Values by Neighbourhood, Excluding New Construction

Table 42 is based on the base sample excluding properties where the change in gross improvements is in excess of 20% where only properties that are in the sample for the current and prior year are used in the analysis.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	-7.5%	3.8%	-8.0%	-2.3%	6.9%	0.6%	11.7%	2.3%	7.6%	18.8%
KITSILANO	0.4%	-0.8%	-1.3%	0.3%	-0.7%	1.4%	20.6%	5.3%	6.2%	26.4%
DUNBAR	0.8%	7.4%	-6.8%	-2.9%	-2.4%	-3.9%	19.0%	9.7%	10.1%	11.9%
ARBUTUS	-0.8%	-1.9%	-1.4%	-0.1%	-1.3%	-0.1%	4.8%	1.1%	3.8%	16.0%
KERRISDALE	0.1%	-0.9%	-3.8%	-1.6%	-2.8%	-0.1%	4.4%	6.2%	4.3%	16.0%
SOUTHLANDS	0.1%	4.0%	-7.0%	1.2%	-2.7%	-8.1%	-0.4%	15.3%	3.2%	21.6%
FAIRVIEW	1.8%	-0.9%	-0.6%	-1.3%	-0.1%	-0.6%	3.5%	12.5%	6.3%	23.2%
SHAUGHNESSEY	3.5%	-2.3%	-0.4%	-2.5%	-0.6%	-0.2%	6.7%	1.3%	8.8%	18.6%
CAMBIE	-0.5%	-3.5%	-2.3%	-1.5%	-0.5%	0.0%	29.3%	0.2%	4.0%	15.4%
SOUTH GRANVILLE	-0.4%	-0.3%	0.0%	-0.1%	-0.5%	-1.0%	-0.6%	2.4%	2.0%	13.6%
OAKRIDGE	3.8%	0.9%	5.9%	2.5%	-2.1%	1.2%	36.7%	5.8%	6.2%	15.2%
MARPOLE	1.9%	-2.7%	1.0%	0.0%	-0.8%	-1.3%	5.7%	2.1%	4.4%	25.3%
MT PLEASANT	-0.8%	-0.9%	-3.1%	-2.5%	-0.6%	-0.9%	0.7%	14.8%	18.9%	22.2%
GRANDVIEW	-0.6%	-1.6%	-5.7%	-1.5%	-1.4%	0.2%	3.7%	4.6%	6.5%	23.5%
CEDAR COTTAGE	-1.0%	-2.3%	-2.7%	-7.4%	-1.8%	1.3%	4.4%	2.9%	10.4%	28.0%
MAIN/FRASER	-1.4%	-1.0%	-1.6%	-1.9%	-3.1%	-1.7%	1.5%	0.5%	9.9%	20.5%
SOUTH VANCOUVER	-1.6%	-1.7%	-1.5%	-3.3%	-1.4%	-4.3%	2.0%	2.6%	3.5%	15.3%
MARINE DRIVE	-1.4%	-0.5%	-6.7%	4.1%	0.2%	5.9%	3.3%	10.8%	3.8%	16.9%
KNIGHT	-2.4%	-1.7%	-1.8%	-5.5%	-1.4%	-2.2%	-2.0%	1.2%	3.8%	23.7%
HASTINGS EAST	-0.6%	-0.9%	-0.4%	-5.6%	-3.8%	-2.0%	-2.3%	4.2%	7.1%	23.0%
RENFREW	-0.8%	0.1%	-2.9%	1.0%	-2.1%	-2.8%	1.0%	12.1%	4.9%	12.5%
RENFREW HEIGHTS	-1.1%	-5.7%	-1.8%	-1.0%	-1.0%	0.2%	-2.9%	5.3%	6.3%	13.1%
COLLINGWOOD	-0.2%	-2.5%	-4.2%	-2.5%	-4.7%	-0.6%	1.7%	2.9%	8.0%	24.2%
KILLARNEY	-1.9%	-1.3%	-1.2%	-1.1%	-2.4%	-0.1%	0.8%	3.6%	10.8%	18.8%
FRASERVIEW	-0.7%	-1.5%	-0.4%	-1.5%	-5.0%	-0.2%	2.0%	1.3%	2.6%	24.4%
DOWNTOWN	5.1%	-1.4%	-0.5%	1.3%	-1.5%	-2.3%	-1.2%	3.9%	12.4%	19.1%
WEST END	7.0%	-2.4%	0.7%	1.1%	-0.6%	-2.2%	0.0%	8.0%	9.7%	17.4%
HARBOUR	7.1%	-3.5%	0.6%	2.0%	-0.1%	-2.9%	-1.0%	4.4%	11.6%	18.9%
DOWNTOWN SOUTH	5.1%	-1.4%	-0.2%	1.7%	-0.7%	8.8%	14.1%	13.8%	16.2%	28.0%
FALSE CREEK NORTH	-22.5%	0.4%	-9.1%	-30.1%	-0.6%	10.4%	8.1%	19.5%	16.9%	18.5%
Total	**2.4%**	**-1.3%**	**-1.3%**	**0.1%**	**-1.1%**	**-0.5%**	**2.5%**	**7.0%**	**10.7%**	**20.8%**

Table 43: Class 6 Annual Percentage Changes in Total Assessed Value by Neighbourhood – Excluding New Construction

Table 43 is based on the base sample excluding properties where the change in gross improvements is in excess of 20% where only properties that are in the sample for the current and prior year are used in the analysis.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	0.7%	1.6%	1.6%	2.7%	2.4%	-1.8%	0.1%	-1.5%	2.4%	3.4%
KITSILANO	3.4%	2.8%	2.6%	0.0%	1.2%	1.7%	0.9%	-0.5%	0.4%	0.5%
DUNBAR	-4.7%	-2.2%	4.5%	2.3%	-0.7%	1.6%	-1.3%	0.7%	0.5%	2.7%
ARBUTUS	-4.3%	-8.0%	-1.2%	0.6%	1.5%	0.4%	-1.5%	-2.5%	4.3%	-0.4%
KERRISDALE	-1.4%	-3.1%	-0.2%	-0.9%	1.4%	-0.1%	-1.0%	-1.5%	1.4%	-1.0%
SOUTHLANDS	-1.1%	-3.0%	-1.5%	-0.5%	0.9%	-0.8%	-0.9%	-5.3%	2.8%	-1.0%
FAIRVIEW	3.4%	1.1%	1.2%	-1.1%	0.1%	-0.4%	3.0%	1.8%	-0.7%	-2.9%
SHAUGHNESSEY	-3.2%	-5.3%	-2.9%	2.9%	-0.2%	-5.5%	-0.2%	-2.8%	1.2%	-3.3%
CAMBIE	-3.3%	-1.9%	0.3%	-1.4%	-0.4%	0.8%	-2.7%	-0.8%	2.7%	0.7%
SOUTH GRANVILLE	-8.2%	-10.2%	-4.7%	0.5%	-1.4%	-2.4%	-2.9%	-3.4%	-2.7%	-0.4%
OAKRIDGE	-3.3%	-7.2%	-1.8%	0.8%	-2.5%	-1.5%	-2.4%	-4.7%	0.5%	-0.8%
MARPOLE	-3.5%	-3.2%	-1.0%	1.6%	-3.6%	1.2%	-1.0%	-1.0%	-1.9%	-0.8%
MT PLEASANT	3.5%	3.8%	0.2%	-1.0%	-1.1%	-2.4%	-0.6%	3.2%	3.1%	1.2%
GRANDVIEW	2.3%	3.2%	1.1%	-0.4%	-2.0%	-3.7%	-1.1%	1.0%	1.1%	3.2%
CEDAR COTTAGE	3.5%	3.3%	-1.0%	-1.2%	-1.8%	-0.5%	-1.2%	5.9%	-1.7%	4.3%
MAIN/FRASER	1.5%	2.6%	-0.9%	-0.5%	-1.5%	-1.6%	-0.2%	6.9%	-1.1%	-0.1%
SOUTH VANCOUVER	2.7%	1.3%	0.6%	1.1%	-1.6%	1.6%	-5.2%	2.7%	-1.5%	0.0%
MARINE DRIVE	1.9%	0.4%	-2.7%	-2.6%	-3.1%	-3.3%	-1.4%	5.0%	-4.8%	-0.5%
KNIGHT	[illegible].1%	2.0%	-1.0%	0.2%	-0.3%	0.3%	0.3%	-1.6%	0.0%	-0.9%
HASTINGS EAST	2.0%	4.2%	0.0%	0.0%	-0.8%	-4.7%	5.4%	2.1%	-1.1%	2.5%
RENFREW	2.0%	2.5%	-1.4%	-0.8%	-0.9%	-3.5%	1.4%	1.9%	-2.2%	-0.1%
RENFREW HEIGHTS	0.8%	4.1%	-2.9%	-0.2%	-0.6%	-1.1%	1.9%	-0.1%	-3.9%	0.2%
COLLINGWOOD	1.2%	1.5%	0.5%	-1.2%	-1.2%	1.2%	-2.2%	1.4%	0.4%	0.1%
KILLARNEY	-0.9%	-0.7%	-0.5%	-1.4%	0.6%	2.1%	0.1%	-0.6%	-3.5%	-0.8%
FRASERVIEW	-0.7%	0.3%	-0.7%	-1.5%	-1.2%	2.1%	-1.5%	0.6%	-4.4%	-2.3%
DOWNTOWN	4.8%	2.9%	-0.1%	-0.6%	-0.2%	2.9%	1.8%	0.3%	-1.7%	-1.2%
WEST END	3.3%	6.6%	2.5%	-0.5%	2.2%	0.7%	1.0%	0.2%	-0.8%	-2.8%
HARBOUR	73.7%	6.9%	2.4%	2.8%	6.8%	7.0%	11.4%	-2.3%	-1.0%	5.8%
DOWNTOWN SOUTH	6.1%	5.4%	-0.1%	-1.6%	0.9%	1.5%	4.0%	1.9%	0.0%	-0.6%
FALSE CREEK NORTH	4.6%	1.8%	0.3%	0.2%	3.5%	5.7%	3.7%	2.0%	2.0%	-1.4%

Table 44: Class 1 Annual Relative Percentage Changes in Total Assessed Value by Neighbourhoods

Table 44 is based on the base sample where only properties that are in the sample for the current and prior year are used in the analysis. The relative percentages are the annual percentages changes for each neighbourhood relative to the percentage changes for the class.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	-9.6%	5.2%	-6.8%	-2.4%	8.1%	1.1%	9.0%	-4.4%	-2.8%	-1.7%
KITSILANO	-2.0%	0.6%	0.0%	0.2%	0.4%	1.9%	17.6%	-1.7%	-4.1%	4.6%
DUNBAR	-1.5%	8.8%	-5.6%	-3.0%	-1.4%	-3.4%	16.1%	2.5%	-0.6%	-7.3%
ARBUTUS	-3.1%	-0.5%	-0.1%	-0.2%	-0.2%	0.4%	2.2%	-5.5%	-6.2%	-4.0%
KERRISDALE	-2.3%	0.5%	-2.5%	-1.7%	-1.8%	0.4%	1.9%	-0.8%	-5.8%	-3.9%
SOUTHLANDS	-2.3%	5.4%	-5.8%	1.1%	-1.7%	-7.7%	-2.8%	7.7%	-6.8%	0.7%
FAIRVIEW	-0.6%	0.4%	0.7%	-1.4%	0.9%	-0.1%	1.0%	5.1%	-4.0%	2.0%
SHAUGHNESSEY	1.0%	-1.0%	0.9%	-2.6%	0.5%	0.3%	4.1%	-5.4%	-1.7%	-1.8%
CAMBIE	-2.9%	-2.2%	-1.0%	-1.6%	0.6%	0.6%	26.1%	-6.4%	-6.0%	-4.5%
SOUTH GRANVILLE	-2.8%	1.0%	1.4%	-0.2%	0.6%	-0.5%	-3.1%	-4.3%	-7.9%	-6.0%
OAKRIDGE	1.4%	2.3%	7.3%	2.5%	-1.1%	1.7%	33.4%	-1.1%	-4.1%	-4.6%
MARPOLE	-0.5%	-1.3%	2.3%	-0.1%	0.3%	-0.8%	3.1%	-4.6%	-5.7%	3.7%
MT PLEASANT	-3.2%	0.4%	-1.8%	-2.6%	0.5%	-0.4%	-1.7%	7.3%	7.3%	1.2%
GRANDVIEW	-2.9%	-0.2%	-4.4%	-1.5%	-0.3%	0.7%	1.1%	-2.2%	-3.8%	2.3%
CEDAR COTTAGE	-3.4%	-1.0%	-1.5%	-7.5%	-0.8%	1.8%	1.9%	-3.8%	-0.3%	6.0%
MAIN/FRASER	-3.7%	0.3%	-0.3%	-2.0%	-2.1%	-1.2%	-1.0%	-6.1%	-0.8%	-0.3%
SOUTH VANCOUVER	-3.9%	-0.4%	-0.2%	-3.4%	-0.3%	-3.8%	-0.5%	-4.1%	-6.5%	-4.5%
MARINE DRIVE	-3.7%	0.8%	-5.4%	4.0%	1.3%	6.4%	0.8%	3.5%	-6.2%	-3.2%
KNIGHT	-4.7%	-0.4%	-0.6%	-5.5%	-0.4%	-1.7%	-4.4%	-5.4%	-6.2%	2.5%
HASTINGS EAST	-3.0%	0.5%	0.9%	-5.7%	-2.8%	-1.5%	-4.7%	-2.6%	-3.3%	1.8%
RENFREW	-3.2%	1.4%	-1.7%	0.9%	-1.0%	-2.3%	-1.5%	4.7%	-5.3%	-6.8%
RENFREW HEIGHTS	-3.4%	-4.4%	-0.5%	-1.1%	0.0%	0.7%	-5.3%	-1.6%	-4.0%	-6.3%
COLLINGWOOD	-2.5%	-1.1%	-3.0%	-2.6%	-3.7%	0.0%	-0.8%	-3.9%	-2.4%	2.8%
KILLARNEY	-4.2%	0.0%	0.1%	-1.1%	-1.4%	0.4%	-1.7%	-3.2%	0.1%	-1.6%
FRASERVIEW	-3.0%	-0.1%	0.9%	-1.5%	-3.9%	0.4%	-0.5%	-5.3%	-7.3%	3.0%
DOWNTOWN	2.6%	-0.1%	0.8%	1.2%	-0.5%	-1.8%	-3.6%	-2.9%	1.5%	-1.4%
WEST END	4.5%	-1.1%	2.0%	1.0%	0.5%	-1.7%	-2.4%	0.9%	-1.0%	-2.8%
HARBOUR	4.5%	-2.2%	2.0%	1.9%	0.9%	-2.4%	-3.4%	-2.4%	0.8%	-1.6%
DOWNTOWN SOUTH	2.6%	0.0%	1.1%	1.6%	0.3%	9.4%	11.3%	6.3%	4.9%	6.0%
FALSE CREEK NORTH	-24.3%	1.8%	-7.9%	-30.2%	0.5%	10.9%	5.5%	11.7%	5.6%	-1.9%

Table 45: Class 6 Annual Relative Percentage Changes in Total Assessed Value by Neighbourhood, excluding new construction

Table 45 is based on the base sample where only properties that are in the sample for the current and prior year are used in the analysis. The relative percentages are the: percentages changes for each Neighbourhood relative to the percentage changes for the class.

Class 1	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Number of hot properties	3,517	1,705	2,567	2,726	1,759	3,771	5,363	11,278	11,368	7,254
Percent of all properties	2.7%	1.3%	1.9%	1.9%	1.2%	2.6%	3.7%	7.5%	7.5%	4.6%
Percent of all total net value	2.2%	1.5%	2.4%	3.4%	2.0%	2.7%	3.8%	6.2%	6.8%	4.6%
Class 6										
Number of hot properties	233	243	237	479	614	1,064	994	2,647	1,408	1,769
Percent of all properties	2.5%	2.5%	2.3%	4.4%	5.2%	9.0%	8.1%	21.8%	11.8%	14.8%
Percent of all total net value	5.1%	1.8%	3.5%	3.9%	2.8%	7.6%	10.0%	13.4%	11.5%	15.8%

Table 46: Incidence of Hot Properties by Year, Class1 and Class 6, excluding new construction

Table 46 provides an analysis of the annual incidence of hot properties where a hot property is defined as a property having an increase in total net value that is 10% or more above the average for the class, having a change in net improvements of less than 20% and being in the sample the current and prior year.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	0.7%	1.0%	13.3%	4.3%	4.9%	1.9%	10.3%	3.0%	7.8%	10.3%
KITSILANO	4.1%	2.3%	4.1%	3.1%	3.1%	6.9%	3.6%	9.9%	3.1%	2.9%
DUNBAR	0.0%	0.1%	5.4%	4.0%	0.1%	2.6%	0.0%	0.8%	1.2%	0.4%
ARBUTUS	6.7%	0.2%	3.3%	1.8%	4.2%	0.3%	2.2%	2.3%	18.9%	2.8%
KERRISDALE	1.7%	0.4%	0.2%	0.3%	0.3%	2.2%	1.4%	2.3%	9.5%	4.4%
SOUTHLANDS	0.5%	0.1%	0.8%	0.4%	1.1%	0.1%	6.3%	1.5%	11.1%	5.9%
FAIRVIEW	7.3%	2.2%	1.8%	3.2%	2.0%	4.4%	15.1%	24.6%	9.1%	3.6%
SHAUGHNESSEY	0.3%	0.3%	1.4%	13.2%	0.3%	3.0%	0.9%	1.8%	11.9%	2.0%
CAMBIE	1.9%	2.4%	2.8%	3.2%	0.4%	3.7%	1.1%	4.7%	11.9%	2.1%
SOUTH GRANVILLE	0.0%	0.2%	3.9%	3.3%	2.1%	0.1%	2.5%	0.0%	9.0%	2.2%
OAKRIDGE	1.6%	0.4%	0.1%	3.0%	0.0%	2.8%	0.0%	0.0%	8.3%	0.1%
MARPOLE	1.8%	0.3%	10.6%	7.9%	0.0%	0.8%	0.3%	1.7%	5.9%	3.3%
MT PLEASANT	1.4%	3.3%	0.7%	0.7%	0.1%	1.4%	5.6%	21.3%	29.0%	18.2%
GRANDVIEW	2.0%	1.1%	0.1%	0.4%	0.3%	1.8%	3.2%	8.3%	23.8%	15.0%
CEDAR COTTAGE	0.9%	0.8%	0.1%	0.8%	0.1%	0.1%	4.0%	10.1%	0.8%	11.7%
MAIN/FRASER	2.5%	1.6%	0.1%	1.1%	0.2%	1.2%	1.1%	9.6%	1.2%	0.5%
SOUTH VANCOUVER	1.2%	0.3%	0.0%	3.4%	0.3%	0.1%	0.0%	1.1%	0.2%	1.0%
MARINE DRIVE	3.1%	0.2%	0.0%	1.8%	0.1%	1.1%	0.0%	22.0%	0.2%	2.1%
KNIGHT	0.4%	0.2%	0.0%	1.7%	0.0%	0.2%	0.0%	0.0%	0.1%	0.5%
HASTINGS EAST	1.2%	0.2%	0.0%	0.9%	0.0%	0.0%	0.4%	6.6%	0.7%	1.5%
RENFREW	0.0%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	2.1%	2.7%	1.1%
RENFREW HEIGHTS	0.2%	0.1%	0.0%	1.0%	0.0%	0.1%	0.0%	1.7%	0.0%	0.0%
COLLINGWOOD	0.2%	0.6%	0.0%	0.1%	0.3%	1.8%	0.5%	4.4%	2.3%	6.2%
KILLARNEY	0.0%	0.1%	0.0%	0.6%	0.3%	0.1%	0.0%	2.2%	0.1%	0.0%
FRASERVIEW	4.7%	0.3%	0.0%	0.0%	0.0%	2.8%	0.0%	7.9%	2.5%	6.1%
DOWNTOWN	6.3%	0.4%	0.4%	0.3%	0.8%	8.2%	4.9%	11.4%	1.1%	2.7%
WEST END	6.8%	3.7%	0.5%	0.5%	0.9%	2.1%	7.1%	6.1%	15.4%	3.4%
HARBOUR	100.0%	1.9%	15.9%	1.1%	7.3%	3.4%	69.8%	6.1%	9.8%	23.6%
DOWNTOWN SOUTH	7.3%	6.7%	3.9%	1.0%	3.2%	8.3%	4.5%	8.5%	3.5%	4.0%
FALSE CREEK NORTH	9.9%	0.4%	0.4%	0.6%	7.4%	5.7%	5.1%	7.8%	11.8%	2.0%
Total	**2.7%**	**1.3%**	**1.9%**	**1.9%**	**1.2%**	**2.6%**	**3.7%**	**7.5%**	**7.5%**	**4.6%**

Table 47: Class 1 percent Incidence of Hot Properties

Table 47 provides a summary of the incidence of hot properties by year for Class 1 as a percentage of all properties in the neighbourhood.

Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POINT GREY	0.0%	19.9%	0.0%	1.3%	1.3%	9.4%	5.0%	13.2%	31.4%	7.1%
KITSILANO	0.7%	3.1%	3.7%	6.3%	6.8%	16.2%	32.5%	14.2%	3.8%	8.9%
DUNBAR	1.0%	7.8%	0.0%	0.9%	9.8%	14.8%	18.7%	30.9%	11.1%	11.5%
ARBUTUS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	0.0%	50.0%	0.0%
KERRISDALE	1.3%	0.0%	0.6%	0.0%	0.0%	12.8%	11.3%	16.8%	7.3%	2.1%
SOUTHLANDS	61.5%	5.8%	0.0%	2.0%	0.0%	8.2%	0.0%	12.0%	8.2%	4.1%
FAIRVIEW	4.1%	4.7%	0.4%	3.4%	2.1%	5.4%	13.9%	32.4%	5.9%	24.6%
SHAUGHNESSEY	0.0%	0.0%	2.0%	2.0%	0.0%	18.0%	10.0%	0.0%	2.0%	4.0%
CAMBIE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	26.3%	14.5%	5.1%	3.8%
SOUTH GRANVILLE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	11.1%	0.0%	0.0%
OAKRIDGE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%
MARPOLE	4.4%	0.0%	0.0%	9.3%	1.4%	0.7%	5.5%	2.8%	2.1%	15.5%
MT PLEASANT	0.4%	3.0%	0.7%	3.6%	5.1%	7.4%	2.7%	8.4%	17.1%	17.1%
GRANDVIEW	0.0%	0.4%	0.8%	0.7%	0.4%	7.5%	3.0%	3.4%	4.7%	9.2%
CEDAR COTTAGE	0.9%	0.9%	0.3%	0.0%	0.9%	7.3%	3.1%	12.2%	10.2%	16.7%
MAIN/FRASER	0.0%	0.7%	1.7%	1.0%	1.0%	7.7%	3.5%	5.2%	0.0%	8.3%
SOUTH VANCOUVER	0.0%	0.8%	0.0%	0.0%	3.1%	3.8%	3.1%	10.1%	11.5%	4.5%
MARINE DRIVE	3.6%	2.2%	0.2%	20.5%	2.1%	25.2%	5.9%	13.3%	10.7%	9.2%
KNIGHT	0.8%	3.4%	0.0%	0.0%	0.9%	4.4%	0.7%	3.7%	0.0%	11.9%
HASTINGS EAST	0.0%	0.6%	0.0%	0.0%	3.8%	0.6%	3.8%	14.1%	6.6%	8.1%
RENFREW	0.0%	1.2%	6.1%	0.0%	0.6%	3.6%	0.6%	18.2%	0.0%	7.2%
RENFREW HEIGHTS	0.0%	2.0%	0.0%	0.0%	0.0%	4.0%	2.0%	2.0%	0.0%	2.1%
COLLINGWOOD	1.1%	0.6%	0.0%	4.1%	1.8%	7.2%	0.9%	17.7%	8.0%	14.9%
KILLARNEY	15.4%	0.0%	0.0%	0.0%	4.2%	31.9%	1.7%	14.3%	1.7%	5.0%
FRASERVIEW	0.0%	0.0%	0.0%	4.8%	0.0%	5.0%	4.8%	9.5%	9.5%	9.5%
DOWNTOWN	3.4%	2.6%	0.7%	3.5%	9.6%	3.5%	2.0%	32.0%	9.3%	19.6%
WEST END	9.9%	6.7%	1.0%	2.3%	6.4%	1.9%	9.1%	28.4%	11.1%	3.2%
HARBOUR	11.4%	2.9%	5.6%	7.5%	47.9%	3.9%	1.3%	17.2%	26.4%	2.4%
DOWNTOWN SOUTH	2.6%	0.1%	13.2%	8.8%	6.1%	15.6%	18.4%	41.7%	27.5%	21.6%
FALSE CREEK NORTH	0.0%	1.4%	0.0%	5.3%	0.4%	34.3%	17.3%	22.6%	36.9%	2.1%
Total	**2.5%**	**2.5%**	**2.3%**	**4.4%**	**5.2%**	**9.0%**	**8.1%**	**21.8%**	**11.8%**	**14.8%**

Table 48: Class 6 Percent Incidence of Hot Properties by Neighbourhood

Table 48 provides a summary of the incidence of hot properties by year for Class 6 as a percentage of all properties in the neighbourhood.

Hot Properties: Decile distribution of relative percentage changes in total net value										
Decile	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
10	11.1%	11.4%	12.0%	11.0%	11.3%	11.3%	11.4%	10.9%	12.1%	11.78%
20	12.6%	12.0%	16.9%	12.4%	13.7%	12.9%	13.1%	11.9%	14.1%	14.75%
30	14.4%	13.0%	18.3%	13.6%	15.7%	14.7%	16.4%	12.3%	16.2%	17.23%
40	15.9%	14.3%	19.0%	15.4%	18.8%	17.3%	18.4%	13.5%	19.0%	19.61%
50	20.7%	15.3%	19.1%	17.1%	19.9%	21.1%	20.3%	16.1%	22.7%	20.67%
60	27.7%	16.2%	21.4%	19.8%	23.7%	23.8%	25.0%	22.1%	26.6%	23.86%
70	35.1%	19.9%	23.0%	21.5%	26.8%	32.7%	27.4%	30.3%	33.2%	29.11%
80	51.7%	24.3%	23.3%	29.9%	43.4%	50.3%	37.8%	43.8%	47.3%	37.13%
90	54.5%	34.6%	23.6%	113.4%	46.5%	61.2%	54.2%	72.4%	87.5%	49.10%
Count	233	243	237	479	614	1,064	994	2,647	1,408	1,769
Benchmark	**3.61%**	**0.00%**	**0.15%**	**2.25%**	**-0.17%**	**1.51%**	**4.08%**	**8.54%**	**12.35%**	**24.14%**

Table 49: Class 6 Decile Distribution of Relative Percentage Changes in Total Net Value for Hot Properties

Table 49 provides details on the distribution of the relative annual year-over-year changes for Class 6 properties. This ranks all properties by their relative annual changes, lowest to highest, and breaks the total sample into 10 equal groupings of properties.

Total gross value	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Class 1										
Less than $150,000	4.2%	2.3%	0.8%	0.9%	0.5%	3.8%	5.1%	14.4%	36.2%	14.3%
$150,000 to $500,000	2.9%	1.2%	2.2%	1.6%	1.2%	2.5%	3.4%	9.7%	6.5%	7.1%
$500,001 to $1,000,000	0.8%	0.6%	1.9%	3.5%	1.6%	2.4%	4.0%	2.1%	5.5%	2.0%
$1,000,001 to $2,000,000	1.1%	1.2%	0.6%	9.8%	4.7%	0.6%	2.4%	2.0%	7.8%	3.9%
Over $2,000,000	1.9%	1.9%	1.4%	6.7%	4.5%	2.3%	2.6%	3.1%	8.4%	9.5%
Hotspot as a % of total	2.7%	1.3%	1.9%	1.9%	1.2%	2.6%	3.7%	7.5%	7.5%	4.6%
Class 6										
Total gross value										
Less than $150,000	3.4%	3.5%	5.9%	6.9%	8.6%	7.1%	5.3%	30.6%	9.6%	20.1%
$150,000 to $500,000	1.6%	1.9%	0.7%	3.4%	4.4%	11.1%	7.3%	22.0%	14.7%	11.2%
$500,001 to $1,000,000	1.8%	2.4%	1.1%	3.6%	2.6%	9.4%	10.6%	13.2%	11.4%	11.8%
$1,000,001 to $2,000,000	2.1%	2.3%	1.4%	2.7%	1.4%	8.3%	11.2%	13.2%	10.4%	15.9%
Over $2,000,000	5.4%	2.6%	1.9%	3.5%	3.4%	8.7%	14.7%	14.4%	11.9%	15.0%
Hotspot as a % of total	2.5%	2.5%	2.3%	4.4%	5.2%	9.0%	8.1%	21.8%	11.8%	14.8%

Table 50: Hot Properties as a Percentage of all Properties by Category of Total Gross Value by Year

Table 50 summarizes the percentage of all Class 1 and Class 6 hot properties, classified by categories of total gross value. The purpose of this table is to help determine whether the value of a property is related to the possibility of being a hot property.

Class 1	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Strata	4.8%	1.9%	1.4%	1.2%	1.5%	3.5%	5.6%	10.9%	9.1%	6.0%
Non-strata	0.7%	0.7%	2.4%	2.8%	1.0%	1.5%	1.1%	2.7%	5.1%	2.4%
Total	2.7%	1.3%	1.9%	1.9%	1.2%	2.6%	3.7%	7.5%	7.5%	4.6%
Strata as a percent of the market-full sample										
Strata	48.8%	50.4%	52.1%	53.7%	54.8%	55.9%	57.0%	59.2%	60.5%	62.1%
Strata as a percent of all hotspot										
Strata	86.5%	73.3%	38.4%	33.5%	64.9%	74.5%	86.6%	85.7%	73.3%	80.1%
Class 6										
Strata	3.2%	3.3%	4.4%	6.4%	8.8%	10.6%	7.0%	34.9%	16.7%	13.9%
Non-strata	2.1%	2.1%	1.1%	3.0%	2.1%	7.6%	9.1%	9.5%	7.4%	15.6%
Total	2.5%	2.5%	2.3%	4.4%	5.2%	9.0%	8.1%	21.8%	11.8%	14.8%
Strata as a percent of the market-full sample										
Strata	29.9%	33.2%	37.1%	40.8%	46.2%	47.1%	48.4%	48.7%	48.0%	48.5%
Strata as a percent of all hotspot										
Strata	38.6%	44.0%	71.3%	59.7%	78.2%	55.5%	42.0%	77.7%	67.7%	45.6%

Table 51: Strata Properties as a Percentage of All Properties and Hot Properties

Table 51 reports the number of hot properties as a percentage of all properties by strata and non-strata classification. The purpose is to help determine whether being a strata property impacts the possibility of being a hot property. a

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Class 6										
< 0.35	3.2%	1.9%	0.9%	0.3%	1.5%	2.6%	2.1%	4.5%	19.5%	0.2%
0.35 to 0.50	6.2%	2.4%	0.9%	1.0%	1.6%	4.3%	5.1%	9.1%	6.2%	5.4%
0.5 to 0.65	4.0%	1.8%	0.7%	1.1%	1.5%	2.5%	5.9%	10.8%	8.4%	3.6%
0.65 to 0.80	2.9%	1.4%	2.3%	1.8%	0.6%	2.1%	3.8%	7.5%	7.1%	5.5%
0.80 to 0.99	0.9%	0.5%	2.9%	3.3%	1.1%	2.1%	1.8%	4.9%	6.9%	4.3%
Over 1	4.9%	1.7%	7.5%	12.3%	4.6%	12.6%	8.5%	12.3%	22.3%	16.6%
Total	**2.7%**	**1.3%**	**1.9%**	**1.9%**	**1.2%**	**2.6%**	**3.7%**	**7.5%**	**7.5%**	**4.6%**

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Class 6										
< 0.35	1.6%	3.8%	6.6%	3.9%	1.5%	2.8%	0.4%	1.3%	2.1%	0.0%
0.35 to 0.50	2.5%	2.2%	5.5%	9.0%	4.9%	6.8%	5.4%	22.6%	9.9%	20.6%
0.5 to 0.65	0.8%	1.7%	0.9%	3.0%	7.0%	6.2%	4.5%	33.7%	10.2%	8.9%
0.65 to 0.80	1.7%	1.7%	0.4%	1.4%	8.3%	10.8%	7.2%	21.8%	10.0%	8.3%
0.80 to 0.99	2.0%	2.2%	1.1%	2.1%	2.5%	8.2%	13.0%	21.8%	15.2%	15.3%
Over 1	5.3%	3.4%	1.4%	9.4%	6.2%	18.6%	17.7%	22.4%	20.6%	33.5%
Total	**2.5%**	**2.5%**	**2.3%**	**4.4%**	**5.2%**	**9.0%**	**8.1%**	**21.8%**	**11.8%**	**14.8%**

Table 52: Hot Properties as a Percentage of All Properties by category of Land-to-Total Net Value Ratio, by Category by Year

Table 52 analyzes the impact of the land-to-total net value ratio to determine whether this ratio can help explain the incidence of hot properties.

Year	Repeat 1	Repeat 2	Repeat 3	Total	Number Hotspots	% of total Repeat 1	% of total Repeat 2
1998	0	n/a	n/a	0	3517	n/a	n/a
1999	92	0	n/a	92	1705	5.4%	n/a
2000	11	2	0	13	2567	0.4%	0.1%
2001	18	0	0	18	2726	0.7%	0.0%
2002	72	2	0	74	1759	4.1%	0.1%
2003	48	1	0	49	3771	1.3%	0.0%
2004	173	1	0	174	5363	3.2%	0.0%
2005	417	0	0	417	11278	3.7%	0.0%
2006	1114	49	0	1163	11368	9.8%	0.4%
2007	1085	298	27	1410	7254	15.0%	4.1%
Total	**3030**	**353**	**27**	**3410**	**51308**	**5.9%**	**0.7%**
Year	Repeat 1	Repeat 2	Repeat 3	Total	Number Hotspots	% of total Repeat 1	% of total Repeat 2
Class 6							
1998	n/a	n/a	n/a	n/a	233	n/a	n/a
1999	4	n/a	n/a	4	243	1.6%	n/a
2000	5	0	0	5	237	2.1%	0.0%
2001	65	1	0	66	479	13.6%	0.2%
2002	52	0	0	52	614	8.5%	0.0%
2003	92	29	0	121	1064	8.6%	2.7%
2004	144	23	1	168	994	14.5%	2.3%
2005	240	21	12	273	2647	9.1%	0.8%
2006	297	22	14	333	1408	21.1%	1.6%
2007	136	22	1	159	1769	7.7%	1.2%
Total	**1035**	**118**	**28**	**1181**	**9688**	**10.7%**	**1.2%**

Table 53: Frequency of Hot Properties Repeating in Consecutive Years, by Year and Class

Table 53 analyzes the hot properties to determine whether a hot property will repeat as a hot property the following year.

Class 1	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Base sample	129,904	133,659	137,497	140,450	142,860	144,422	146,017	149,693	151,853	156,593
Hotspot	3,517	1,705	2,567	2,726	1,759	3,771	5,363	11,278	11,368	7,254
Hotspot with 3 year averaging		148	278	312	192	221	662	2,520	3,206	2,927
Percentage of all properties - count										
Hotspot	2.7%	1.3%	1.9%	1.9%	1.2%	2.6%	3.7%	7.5%	7.5%	4.6%
Hotspot with 3 year averaging		0.1%	0.2%	0.2%	0.1%	0.2%	0.5%	1.7%	2.1%	1.9%
Percentage of all properties - total net value										
Hotspot	2.2%	1.5%	2.4%	3.4%	2.0%	2.7%	3.5%	6.2%	6.8%	4.6%
Hotspot with 3 year averaging		0.3%	0.7%	0.5%	0.4%	0.6%	0.7%	1.4%	1.4%	1.0%
Class 6	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Base sample	9,509	9,876	10,274	10,867	11,783	11,844	12,256	12,119	11,901	11,954
Hotspot	233	243	237	479	614	1,064	994	2,647	1,408	1,769
Hotspot with 3 year averaging		64	105	150	496	1,136	741	1,143	1,056	821
Percentage of all properties - count										
Hotspot	2.5%	2.5%	2.3%	4.4%	5.2%	9.0%	8.1%	21.8%	11.8%	14.8%
Hotspot with 3 year averaging		0.6%	1.0%	1.4%	4.2%	9.6%	6.0%	9.4%	8.9%	6.9%
Percentage of all properties - total net value										
Hotspot	5.1%	1.8%	3.5%	3.9%	2.8%	7.6%	10.0%	13.4%	11.5%	15.8%
Hotspot with 3 year averaging		0.5%	2.6%	1.8%	2.3%	5.5%	8.9%	11.3%	11.2%	11.3%

Table 54: Impact of Three Year Land Averaging

Table 54 analyzes the impact of three year land averaging on the incidence of hot properties.

Class 1 Based on Count	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
With 20% New Construction and 10% Relative	3,517	1,705	2,567	2,726	1,759	3,771	5,363	11,278	11,368	7,254
With 10% New construction and 10% Relative	3,257	1,466	2,465	2,534	1,625	3,595	5,076	8,205	11,136	6,890
With 20% New Construction and 15% Relative	710	509	380	806	628	1,074	2,493	5,201	5,334	3,464
With 10% New Construction and 15% Relative	611	414	364	758	582	1,027	2,249	3,853	5,282	3,216

Table 55: Class 1 Comparison of Alternative Benchmarks for New Construction and Relative Changes

Table 55 applies to Class 1 properties. Throughout the analysis we have made two key assumptions. The first relates to our estimate of new construction. In the main body of the report we use a benchmark of 20% annual increase in net improvements as our standard to define new construction. We recognize this is likely on the high side but opted to use 20% criteria to ensure we did not under-estimate the number of hot properties. We explore the impact of using a 10% criterion to identify new construction. The results are predictable: a lower benchmark (10%) for defining new construction reduces the incidence of hot properties. In practice, the City would have the precise figures for new construction for each property; hence our estimates are only for purpose of analysis.

The second main assumption is the standard for classifying a property as a hot property. In the main report we adopt a relative increase of 10% or more as the defining standard for a hot property. In Table 55 we analyze the impact of adopting a higher standard of 15%. Once again the results re predictable: a higher relative annual change would reduce the incidence of hot properties. Unlike our assumption for estimating new construction, the standard adopted for relative changes is not an empirical question, but rather a matter of policy.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Class 6 Based on Count										
With 20% New Construction and 10% Relative	233	243	237	479	614	1064	994	2647	1408	1769
With 10% New construction and 10% Relative	219	186	218	420	596	1040	864	2077	1362	1549
With 20% New Construction and 15% Relative	151	128	203	298	470	733	745	1441	1065	1405
With 10% New Construction and 15% Relative	144	97	196	259	462	727	665	1114	1034	1216

Table 56: Class 6 Comparison of Alternative Benchmarks for New Construction and Relative Changes

See discussion above for Class 1 properties.

APPENDIX E: ANALYSIS OF CLASS 5 LIGHT INDUSTRIAL PROPERTIES

Introduction

We have elected to leave the analysis of Class 5 properties to the appendix, in large part because the number and value of properties in Class 5 is small (less than 1% of all properties and assessed value in the City of Vancouver) and it was not always possible to use this small number of properties to extend the analysis as was done with Classes 1 and 6. This brief summary will demonstrate that the hot spot issues raised in the context of Classes 1 and 6 are also present in the industrial properties in Class 5.

Table 57 provides a summary of the key statistics for Class 5 properties for the period since 2002. Prior to 2002 there were almost no hot properties in Class 5.

Summary of Class 5 Property Characteristics						
	2002	2003	2004	2005	2006	2007
Net Land	0.7%	5.5%	5.0%	11.8%	8.1%	27.8%
Net Improvements	-13.6%	-0.2%	-3.0%	10.2%	1.0%	12.5%
Total Net Value	-3.6%	5.0%	3.7%	12.6%	7.1%	24.2%
Net Improvements, net of new construction	-15.5%	-2.6%	-5.5%	-2.6%	-3.3%	-1.1%
All Properties	312	351	354	341	348	347
Hot Properties	35	24	8	29	8	50
% Hot properties	11.2%	6.8%	2.3%	8.5%	2.3%	14.4%
Hot properties with 3 year land averaging	19	15	11	19	9	19
hot properties with 5 year land averaging	22	9	8	22	10	11
Hot property land-total net value ratio as Percentage of land-total net value ratio for all Properties	98.4%	109.0%	83.3%	105.6%	89.6%	116.0%
Total vacant properties	54	56	60	56	57	74
Vacant hot properties	6	12	1	10	2	19
% Hot properties	11.1%	21.4%	1.7%	17.9%	3.5%	25.7%

Table 57: Summary of Class 5 Property Characteristics

In general we find the same results for Class 5 as we found for Classes 1 and 6. The annual year-over-year changes in net land are the key driving force behind the changes in total values. The annual changes in net improvements, with or exclusive of new construction, are significantly less than the changes in land values. Moreover, the volatility in annual changes in land value is significantly larger than for net improvements once new construction is removed.

The number of hot properties fluctuates significantly year over year, but this reflects in large part the small sample. For example, three properties represent approximately 1% of the annual count. The evidence does support a conclusion that hot properties are an issue in Class 5 just as in Classes 1 and 6. Over the entire study period, 6.4% of all properties were identified as hot properties but in recent years this has been as high as 11.2% in 2002 and 14.4% in 2007.

Table 58 summarizes the role of vacant properties in Class 5. Except for 2004, the hot properties that were vacant properties are significantly over-represented: in 2007 25.7% of all Class 5 vacant properties were hot properties, but hot properties represented only 14.4% of all Class 5 properties. Vacant properties were twice as likely to be hot properties in 2007. If the vacant properties were eliminated, the incidence of hot properties declines from 6.4% to 3.0% for the entire study period.

The impact of three and five year land averaging is also summarized in Table 58. Three year land averaging reduces the incidence of hot properties from 163 over the study period to 102. However, it is interesting to note that in two years (2004 and 2006) the three year land averaging actually increased the number of hot properties, albeit with very small numbers involved. Five year averaging further reduces the number of hot properties to 88 properties over the study period. The results are similar to those found for Classes 1 and 6: Averaging eliminates some hot properties and creates others, but on balance reduces, but does not eliminate the number of hot properties.

The role of the land-to-total net value ratio is also summarized in Table 58. We have used the ratio of land-to-total net value for hot properties as a percentage of the same ratio n for all properties. When the percentage is in excess (less than) 100% it implies the hot properties have, on average, a higher (lower) land-to-total net value ratio than the entire sample of properties. The evidence is mixed:, for three years the percentage is above 100% implying the land-to-total value ration for hot properties is greater than for other properties and for three years it is below 100%. Based on this evidence, it is difficult to conclude that the land-to-total net value ratio is an important factor in identifying hot properties, at least in Class 5.

We analyzed the issue of hot Neighbourhoods for Class 5. Table 58 summarizes the incidence of hot properties by Neighbourhood. Because of the small numbers involved, we only present the summary for the entire study period.

Class 5 Hot Properties by Neighbourhood			
Neighbourhood	Total	Hot	% hot
SOUTHLANDS	10	1	10.0%
FAIRVIEW	251	40	15.9%
MARPOLE	5	0	0.0%
MT PLEASANT	805	43	5.3%
GRANDVIEW	532	8	1.5%
CEDAR COTTAGE	82	8	9.8%
MARINE DRIVE	749	59	7.9%
HASTINGS EAST	13	0	0.0%
RENFREW	37	2	5.4%
DOWNTOWN	9	0	0.0%
HARBOUR	42	2	4.8%
Total	2,535	163	6.4%

Table 58: Class 5 Hot Properties by Neighbourhood

The results in Table 58 support the notion that some Neighbourhoods have a higher incidence of hot properties. The Neighbourhoods of Fairview, Cedar Cottage and Marine Drive all have high incidence of hot properties[55]. On the other hand, three of the four smallest Neighbourhoods with the fewest Class 5 properties had no hot properties throughout the study period and the fourth had only one hot property. Clearly the incidence of hot properties in Class 5 tends to be concentrated.

As a final point in the analysis we explored the role of property value in the determination of hot properties. We are able to conclude that the Class 5 hot properties are over-represented in the lower value ranges, a finding consistent with the results for Classes 1 and 6. But we do caution that the small number of properties involved should be kept in mind.

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[55] Southlands also has a high percentage (10%) but only one hot property.

APPENDIX F: IMPACT OF CAPPING AND PHASE-IN FOR CLASS 1 RESIDENTIAL PROPERTIES

Introduction

We analyzed the impact of capping and phase-in on Class 6 properties in Section 9 of the Report. We provide a similar analysis for the Class 1 properties in this appendix. As we will note below, the impacts of capping and phase-in on Class 1 are essentially the same as for Class 6. There are two important differences. First, the percentage of all properties that are hot properties is much lower for Class 1 than for Class 6. Second, the hot properties in Class 6 have much higher annual percentage changes in total assessed value relative to their class average than do Class 6 properties. Figure 12 and Figure 13 below reinforce these observations[56].

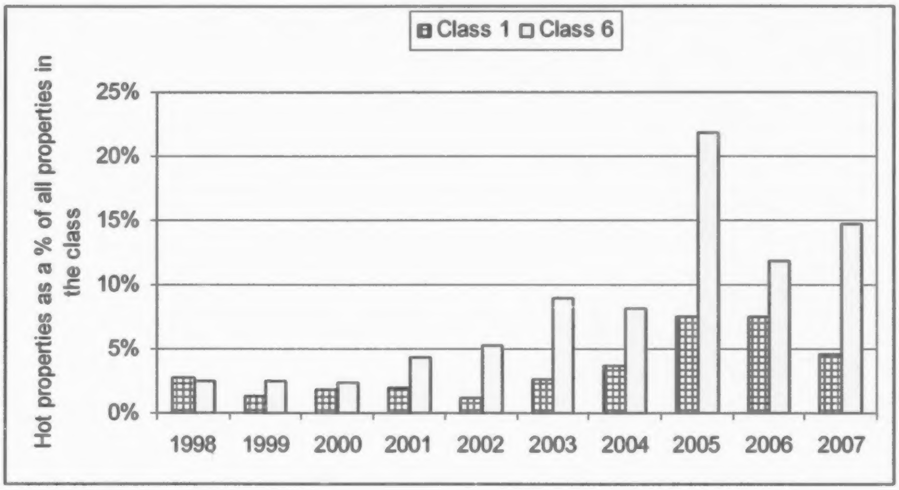

Figure 12: Hot Properties as a Percentage of All Properties

Based on our criteria for a hot property, we identified 51,308 Class 1 and 9,688 Class 6 properties as "hot properties" over the entire 11-year period of the study. While the number of hot properties in Class 1 is much grater than for Class 6, the percentage of all properties in the class is much lower. Hot properties in Class 1 represent 3.6% of the total properties in Class 1 over the period 1998-2007. Hot properties in Class 6 represent 8.6% of all properties in Class 6 over the same period, almost 2.4 times that of Class 1.

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[56] These are taken from section 9 and copied here for convenience.

In more recent years, 2003 to 2007, hot properties in Class 1 represent 5.2% of all Class 1 properties and hot properties in Class 6 represented 13.1% of all Class 6 properties, almost the same relationship as for the entire study period.

The second point to consider is the significant difference in the annual percentage changes facing Class 1 and Class 6 hot properties. Figure 13 below illustrates this point.

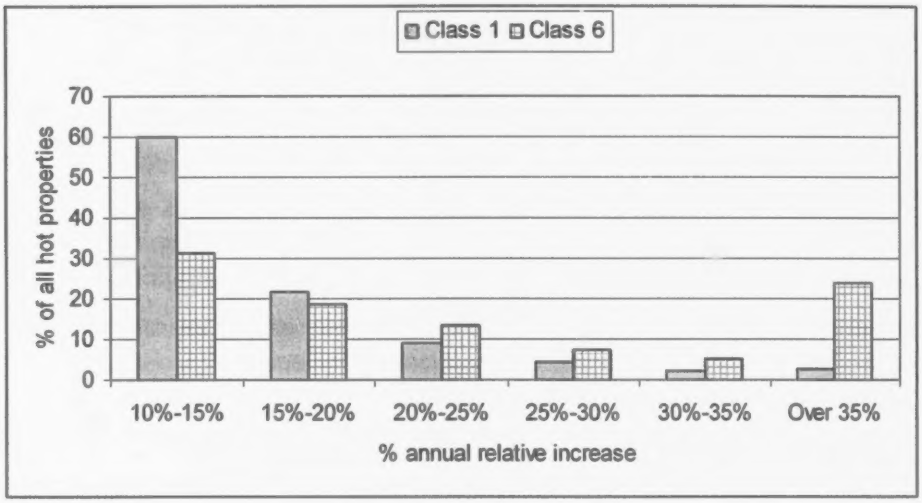

Figure 13: Categories of Relative Percentage Changes for Classes 1 and 6 Properties (all years combined)

While Figure 12 indicates that the number of hot properties is significant, Figure 13 indicates that the relative increases experienced by these hot properties are large[57]. While 10% is the minimum relative increase to be considered a hot property, many of the hot properties have single year relative changes that are significantly beyond the 10% benchmark. Furthermore, the relative changes for hot Class 6 properties are generally much larger than for Class 1 properties.

These findings suggest that the application of capping and phase-in to Class 1 properties will start from a very different basis in terms of the significance of the volatility issue. We adopt the same capping and phase-in mechanisms for Class 1 properties as we used for Class 6 properties.

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[57] SINCE RELATIVE PERCENTAGE CHANGES INCORPORATE THE ANNUAL CHANGES FOR THE CLASS, IT IS POSSIBLE TO THEN COMPARE RELATIVE CHANGES ACROSS YEARS AND ACROSS CLASSES.

Does the intervention reduce the number of hot properties?

Figure 14 summarizes the impact of the four interventions (3-year and five-year averaging, capping, and phase-in). As was the case for Class 6, three-year averaging is the least effective at reducing the number of hot properties and five-year averaging is the most effective. Phase-in is slightly more effective than capping and both are superior to three-year averaging.

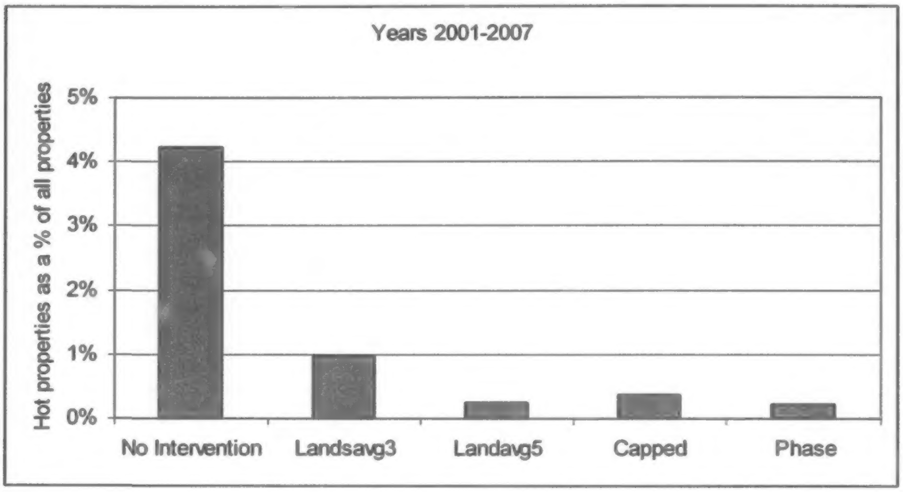

Figure 14: Percentage of all Class 1 Properties that are Hot Properties Under the Various forms of Intervention

The one significant difference between the results for Class 1 and Class 6 is the final percentage of hot properties remaining after the interventions. Less than 1% of all Class 1 properties are hot properties following the interventions. In contrast, somewhere between 4% and 6% of Class 6 properties are hot properties after the interventions.

Is the intervention focused?

The second consideration we explored is the extent to which the intervention is focused on a few properties rather than on many. Averaging applies to all properties in a class, subject to some specific exemptions. In contrast, the capping and phase-in mechanisms we analyzed focus on those properties facing the highest relative percentage changes before the intervention is applied.

The two land averaging mechanisms benefit approximately one-half the properties (as is expected). Capping is the most focused and the phase-in is slightly less focused than capping.

Does the intervention reduce the size of the impact on hot properties?

Figure 15 addresses this question by looking at the relative change that the remaining hot properties would face. Recall that the minimum relative percentage change to be considered a hot property is 10%.

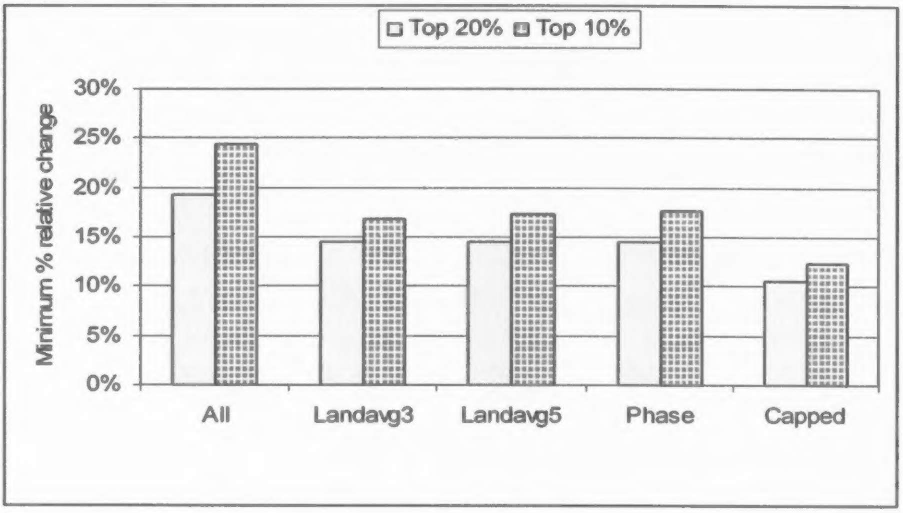

Figure 15: Class 1: Annual Relative Changes in Total Value Experienced by the Top 20% and Top 10% of Hot Properties

In the absence of intervention, 20% of the hot properties in Class 1 faced relative percentage changes of 19% or more. The top 10% would face relative percentage changes of 24% or more.

Capping is the most effective and the other three interventions are approximately the same.

Is the length of time to eliminate the option acceptable?

The results in Figure 16 suggest that both capping and phasing would take more than three years to eliminate, but the numbers below full assessed value after six years is very small. As in the case of Class 6, the capping mechanism leaves a few properties below full value for longer, but the numbers are less than one-quarter of one percent.

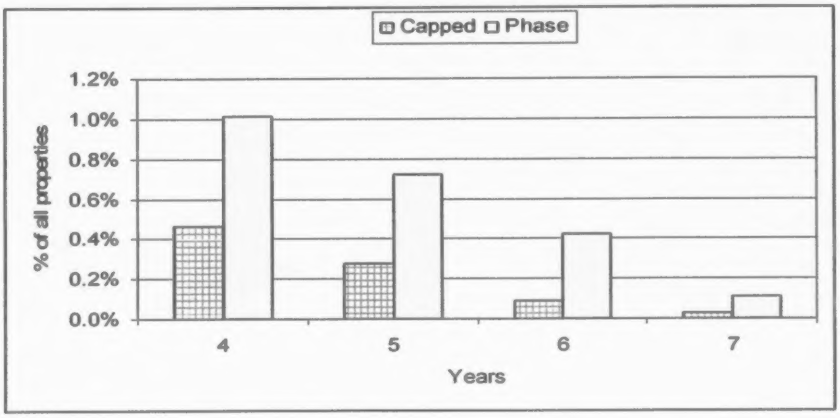

Figure 16: Number of Years for Capped or Phased total Values to Reach Full Assessed Value (assuming the future changes in the total value for the property is equal to the future changes for the class

APPENDIX G: INTERIM REPORT

City of Vancouver Property Tax Policy Review Commission
Interim Report, March 8, 2007

Introduction

We would like to thank the City Council for appointing us to the Commission. We appreciate the opportunity to assist the City and recognize the significance of this undertaking. We look forward to filing our final report in June.

In the meantime, as required in our Terms of Reference, we are submitting an Interim Report. Although the Commission has not completed its deliberations, it has had an opportunity to hear from individuals and delegations at public hearings and has benefited from the extensive previous work on these same topics.

In September 28, 2006 the Council approved the Terms of Reference for the City of Vancouver Property Tax Policy Review Commission. The Mandate of the Commission includes two major objectives:

7. "to recommend to Vancouver City Council a long-term policy that will define and achieve a 'fair tax' for commercial property taxpayers, addressing the perceived inequity in the share of the City of Vancouver's property tax levy that is paid buy the non-residential property classes, as compared to the share paid by the residential property class," and
8. "to recommend a strategy to enhance the stability and predictability of property taxes for individual properties in the face of sudden, large year-over-year increases in market value."

In addressing these two objectives, the Commission has been asked to consider several principles and guidelines, including equity, sustainability, independence, objectivity, simplicity, consultation, transparency, maintaining the fixed-share approach, and limiting the recommendations to the property taxes that are levied by the City of Vancouver only (general taxes).

The Terms of Reference set a schedule for delivery of recommendations for March 1, 2007, but provide that should the work of the Commission not be completed by March 1, 2007, the recommendations made at that time could be made as interim recommendations, with the final recommendations delivered to Council by June 1, 2007.

The work of the Commission is not complete at this time but we fully expect to meet the June 1, 2007 deadline. Therefore, this report is our Interim Report and we have two recommendations to make at this time for implementation for the City of Vancouver's

2007 taxation year. Before presenting the two recommendations, the Commission would like to outline the process that has been followed and provide a brief summary of the key points raised at the hearings and in the written submissions.

Consultation and Transparency

The Terms of Reference for the Commission included several guidelines and principles including:

> "4.5 Consultation – The Commission should appropriately engage the business community, residential taxpayers and other key stakeholders in the process undertaken to arrive at their recommendations." and
>
> "4.6 Transparency – The work done by the Commission should be transparent, with the Commission's public process minuted, and the recommendations reported to Council and available to the public."

The Commission embraces these two guidelines and is committed to a transparent approach that encourages input from all stakeholders.

In terms of engagement, the Commission has thus far structured a number of meetings, including four public meetings. Meetings of the Commission thus far include:

1. November 28, 2006: Preliminary conference call with all Commission members to establish workplan, timelines and next steps. City staff (Ms Karen Levitt and Ms Liz Jones) participated in this call.
2. December 19, 2006: Meeting with City staff (Mr. Ken Bayne, Ms. Estelle Lo, Ms Liz Jones) to discuss Terms of Reference and other business matters relating to the operation of the Commission.
3. December 19, 2006: Meeting with the British Columbia Assessment Authority (Mr. Jason Grant) to ensure the Commission fully understood the assessment process and timetable for annual assessment work.
4. December 19, 2006: Meeting with the Vancouver Fair Tax Coalition representatives (Mr. Ed Des Roches, Mr. Rob Fitzgerald, Mr. Bob Laurie and Ms. Sharon Townsend) to help the Commissioners understand their composition and structure and to ensure the Commission had a comprehensive set of the prior work of the Coalition.
5. December 20, 2006: Meeting with Mr. Stuart Mackay, Mr. Jim Pammeter and Ms. Treena Cook, the authors of the 2007 study, *Consumption of Tax-supported Municipal Services* by MMK Consulting, to allow the Commissioners to ask detailed questions.
6. December 19 and 20, 2006: The Commissioners met on their own to discuss the work plan and outline of data required.

7. February 5, February 6 and February 7, 2007: The Commissioners met on their own during the mornings to continue their discussions. Ms. Karen Levitt and Ms. Liz Jones joined the meetings on February 6th and 7th to take notes and to assist in providing additional information and data the Commissioners requested. Mr. Ken Bayne was asked to join one of the meetings to provide additional information requested by the Commissioners.
8. February 7, 2006: The Commission met briefly with the City Manager, Ms. Judy Rogers, and with Ms. Estelle Lo, Ms. Karen Levitt and Ms. Liz Jones to discuss the matters relating to the work of the Commission.

Public Meetings

In December 2006, the Commission decided to hold public meetings in February 2007. The Commission was guided by the process that the City of Vancouver typically uses for promoting public hearings (see Appendix). The Commission initially concluded that four hearings would be sufficient (February 5th and February 6th, both afternoon and evening) but reserved the right to schedule more, if required. The Commission asked the staff at the City to use their "regular process" to advertise the public meeting. The public hearings were widely advertised in the print media (in several languages), online at the Commission's website (www.vancouver.ca/taxcommission), via an email distribution list of over 460 people and associations, and through a print flyer that was distributed at various locations including community centres, libraries and City Hall. All parties that had recently made submissions to the City relating to the taxation issues were included in the email distribution list.

The public meetings were held as follows:

February 5, 2007	1:30-4:30	VanDusen Gardens
February 5, 2007	6:00-9:00	VanDusen Gardens
February 6, 2007	1:30-4:30	Kensington Community Centre
February 6, 2007	6:00-9:00	Kensington Community Centre

During the four public meetings the Commission had 27 presentations and there were approximately 15 other individuals who attended but did not make presentations. The number of presentations is misleading because the Vancouver Fair Tax Coalition is counted as one speaker when, in fact, it had a team making the presentation. Several other speakers who appeared also represented other taxpayers through an agency or organization. Overall, the speakers represented both residential and non-residential interests. They included homeowners, residential tenants, seniors and both owners and tenants from small and large businesses.

Two members of Council attended one or more of the hearings but did not make presentations or participate in the open discussion periods. The Commission decided not to introduce the Council members as it wanted to ensure the speakers were addressing the Commission rather than appealing directly to Council members.

All participants were invited to provide written materials and several did so, either at the hearings or following the hearings. In addition to the attendance at the hearings, the Commission had invited written comments and received to date 63 written submissions. The Commission indicated to several of the speakers that they may want to contact them for follow-up information. All speakers agreed to assist, if contacted.

Subject to the privacy guidelines of the City of Vancouver, it is the intention of the Commission to post the submissions and transcript of the hearings on the Commission website.

What Did We Hear?

As might be expected, the views expressed to the Commission covered a wide number of themes and resulted in a number of suggestions. In general, the presentations focused on the Residential, Business and Light Industry classes. The major points expressed can be summarized under three broad themes:

1 **Property taxes are "too high."** A few speakers stated that they felt property taxes were too high or, alternatively, that the annual increase in property taxes was too large. These speakers did not believe the solution was to transfer taxes to other property classes but rather to reduce the level of property taxes overall. At the same time, these speakers did not advocate a decrease in services. While these issues are clearly outside the Terms of Reference for the Commission, they do have an impact on the views that these speakers expressed towards other tax issues.

2 **Share of taxes paid by each class.** The most dominant theme was that the share of the overall taxes paid by the Business Class was too high compared to the share paid by the Residential Class, although some individual residential taxpayers (especially seniors) felt that they could not pay higher taxes. Even among the speakers that were not directly associated with a business, there was some sympathy for taxpayers in the Business Class. Several speakers mentioned the need for a "fair sharing" of the tax burden but offered few new suggestions about what constituted "fair." Mention was made about "fair relative to other classes," "fair relative to past taxes," "fair relative to other jurisdictions" and "fair relative to services consumed." The Vancouver Fair Tax Coalition offered the most extensive analysis in support of a reduction in the Business Class share of total property taxes and relied heavily on the "benefits consumed" position as evidenced in the 2007 MMK *Consumption of Tax-Supported Municipal Services.*

There was recognition among those in favor of lowering the share of taxes paid by the Business Class that it will take a number of years to reach the desired level. The

Vancouver Fair Tax Coalition, for example, suggested that it could take 10 years to reach the level of equity it advocates and it recommended that the overall tax levy for the Business Class be frozen for the next two years as a start.

3 **"Hot Spots."** Several speakers mentioned the problems associated with "hot spots." In general, hot spots were defined as geographic areas of the city that experienced unusually large increases in taxes in one year. In some cases, a "hot spot" was taken to mean a collection of properties with some common feature (such as pending (re)development potential) that experienced unusually large increases in taxes in one year. Given that total property taxes for the City do not change by a significant percentage each year and given that the share of total taxes paid by each class has not changed significantly from year to year, it follows that the hot spot issue results when a group of properties within a class experience a change in taxable assessed value that is significantly above the average change in taxable assessed value for the class.

There was no general agreement as to what relative percentage change in taxes results in a hot spot. For example, if the average increase in taxes for the class is 4%, would a subset of properties in that class that experience a 8% increase be a hot spot? Most presenters agreed that the land averaging, if available to the class, helps to address the hot spot issue. What was not clear from the presentations is the extent to which the hot spot persists over a number of years, hence the extent to which the land averaging effectively addresses the hot spot issue.

A further extension of the "hot spot" issue was raised with respect to commercial tenants. In the case of an owner-occupier, the consequence of an above-average increase in taxes falls directly to the owner who presumably has the benefit of the enhanced property value (albeit potential and not necessarily realized gain). But when a property is occupied by one or more tenants and the tenants have signed leases whereby the tenant agrees to pay a base rent plus all expenses including property tax (a "triple net" lease), then the tenant faces an immediate problem when taxes increase at a level not anticipated by the tenant. When leases were originally negotiated, the tenants would have made an estimate of the likely property taxes (and other expenses borne by the tenant) and negotiated the base rent with this estimate in mind. If suddenly the property taxes are much higher than originally estimated, the tenant has little recourse other than to ask the landlord to renegotiate the lease terms. The tenant does not directly enjoy the gains that are reflected in the assessed values. The tenant can address this matter when the lease is renegotiated, but that may be a matter of several years away.

The Commission received a number of other comments and recommendations and these will be addressed in the final report of the Commission.

Interim Recommendations

As noted above, the work of the Commission is not complete. Based on the available evidence and the nature of the issues facing the Commission, however, we are comfortable in making two recommendations. We are confident that adoption of these two recommendations will be consistent with our final recommendations.

Recommendation 1.

The Commission recommends that the City of Vancouver continue the Land Assessment Averaging Program.

Recommendation 2.

The Commission recommends that the City of Vancouver adopt a policy to shift between 1% and 2% of the 2007 tax levy from the non-residential to the residential class.

Recommendation 1 is based on the evidence that the land averaging process helps to address the "hot spot" issue and the general support for it in the consultations. The hot spot issue was identified in the hearings and submissions as a serious problem. Although the Commission is continuing to investigate this issue, it recognizes that hot spots create problems for some sub-sets of properties and that the land averaging process plays an important role in helping to address the hot spot issue.

Recommendation 2 is based on our overall conclusion that the share of the total tax levy paid by the non-residential sector is too high. Although the Commission has not finished its analysis of this issue, we are confident that a shift of between 1% and 2% will not be inconsistent with our final recommendations.

The range of 1% to 2% has been selected for the following reasons. The Commission believes that shift of less than 1% may be interpreted as an indication that the City of Vancouver is not serious about addressing the imbalance between residential and non-residential classes. On the other hand, the Commission believes that a shift above 2% in one year would create unacceptable hardships for some properties in the residential class. The Commission is also aware that the Council has adopted shifts in the order of 1% of the total tax levy on several occasions in the past. As to where the final percentage should be between 1% and 2%, we encourage Council to consider the overall impact of the annual increase on residential property taxpayers.

The Commission will make recommendations in its final report on the appropriate tax shares for the different classes of property after it has completed its analysis. It will also recommend a process for getting to and maintaining the desired tax shares.

Stanley Hamilton
Chair
On behalf of the City of Vancouver Property Tax Policy Review Commission

Advertising for the Public Hearings

The print advertising schedule recommended to the Commission by the Communications Department of the City was adopted.

The advertising was as follows:

Ming Pao (Chinese daily)	Saturday, Jan 27 and Feb 3
Sing Tao (Chinese daily)	Saturday, Jan 27 and Feb 3
Business in Vancouver (English business weekly)	Monday, Jan 29
Vancouver Courier (English community newspaper)	Wednesday, Jan 31 and Friday, Feb 2
Vancouver Sun (English daily newspaper)	Saturday, Jan 27 & Feb 3
The Voice (Indo-Canadian weekly)	Saturday, Jan 27 & Feb 3
The Link (Indo-Canadian weekly)	Saturday, Jan 27 & Feb 3
The Georgia Straight (English weekly newspaper)	Thursday, Feb 1
The WestEnder (English community newspaper)	Thursday, Feb 1
The World Journal (Chinese newspaper)	Saturday Feb 3

Announcements were also placed on the City website and distributed via email to residents and business associations and other potentially interested stakeholders. In addition, the Commission published a "Q&A Backgrounder" for distribution to community centres, libraries and other central locations.